DOCUMENT RESUME

ED 170 775 CS 204 830

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TITLE In the Mind and onto Paper: A Study of Children's Writing.
PUB DATE [74]
NOTE 75p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Applied Linguistics; *Composition (Literary); Creative Writing; Descriptive Writing; Elementary Education; Expository Writing; Intelligence Quotient; Language Research; *Language Usage; Narration; Persuasive Discourse; Reading Comprehension; Sex Differences; *Syntax; *Transformation Generative Grammar; Writing Exercises
IDENTIFIERS Chomsky (Noam)

ABSTRACT

A study of children's syntax from a transformational perspective was initiated to explore the following areas: syntactic differences between narrative, descriptive, expository, and argumentative writing, and the relation of these differences to IQ, sex, and reading comprehension; the relation of syntax content; and the relation of children's preferred writing to syntactic structures. Forty fourth grade students participated in a five-week writing unit, one week each in narrative, descriptive, expository, argumentative, and students' preferred modes. The writing was analyzed syntactically week by week, and syntactic performance in the different modes and population groups was compared with grades or content in the modes and in population groups and incidence of specific language functions. Results indicated the following: mode of writing affected length and incidence of syntactic structures; no relationship was found between mode and sex, IQ, or reading comprehension, nor between syntactic complexity and superiority in content grades, nor between syntax and effective expression of content; and students expressed preference for modes eliciting less complex syntax. (Classroom recommendations are included.) (DF)

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IN THE MIND AND ONTO PAPER

A Study of Children's Writing

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CHAPTER I

BACKGROUND TO THE STUDY

Researcher's Bias

No matter how objective the researcher may strive to be, work is always carried out within the context of individual temperament and experience. It is these that shape the questions, and therefore to some extent the findings, and certainly what the researcher sees the findings to imply. So I find it relevant to preface a study with an outline of the background from which it sprang.

Writing in the Classroom

I believe writing to be such a useful tool for sorting out thoughts and feelings, and such a confirmation of self when we see them sorted out on the page, that I would hope every school day afforded time for it. By this I do not mean to advocate writing for writing's sake. If children's writing is not helping them pursue some interest (whether stamp collecting, dinosaurs, or themselves), or helping them accomplish some purpose (whether improvement of school lunch or planning an old people's party), then I suspect they learn that writing is yet one more of those things you do in school that have no place outside it. What I do mean is that I would hope to plan interesting, purposeful classroom projects with such scope that they necessarily entail writing to further them.

The kind of writing I refer to is not just a juggling of other people's concepts and terminology, but writing that comes from oneself. There may very well be an input of other people's ideas, but the writing is an outcome of the assimilation of the ideas; so that writing up an experiment or library research 'in your own words', for example, means not just a vocabulary change but 'in your own words' because it is 'in your own thoughts'.

I further believe that the teacher can be his own best guide to the reasons for writing and the most constructive way to set about it. If the theories or experiences of acknowledged experts are not confirmed by what we perceive in our own classrooms, I think we are often too quick to assume that we are at fault. Sometimes this leads us to adopt other people's ideas too wholesale, too fast; and sometimes it leads to the opposite, to clamming up in our present ways and refusing to face any possible questions about them. I am suggesting that we do well to listen to the language specialists, but have the responsibility to check what they say against our own experience as literate beings.

A New Grammatical Theory

Various philosophies of language contributed to my basis for work in the classroom as briefly outlined above. J. R. Firth's (1957) penetrating papers on the way we use language to pursue the many different roles in

our lives had me providing opportunity for different kinds of language as we tussled with a new stage of learning or shared emotions, or gossip, or improvised dramatic situations. James Britton's persuasive talks to teachers about the centrality of a child's language in ordering his world had me encourage the children always to explore their cognitive learning as well as their feelings in their own words. Then Basil Bernstein's sociolinguistic research, suggesting that many children's learning problems may be due to the narrowness of their language patterns, had me guiding the children's concrete discussions into generalizations, abstractions and hypotheses.

Formal grammar never played much part. Not that it lacks fascination. But the kind of language study I couldn't omit was exploration of its purposes, an awareness of who was saying what to whom and how and why they were saying it, because the children needed that for learning to cope with living, and there isn't time for everything.

Then when Chomsky's transformational grammar burst on the scene there seemed a hope that here was a clue to the basic human mechanics of getting thoughts into words. Transformational analysis enables us to backtrack from the final, put-together sentence that we hear or read (the transformationalists' "surface structure"), back down through the operations that the transformationalists posit to have been carried out, (according to transformational rules), down to the original, uncoordinated 'bits' of information that form the base, or "deep structure", of the utterance. Backtracking down from the final utterance enables us to see how the adjectives for example were processed in, the qualifications in clause or phrase. With transformational analysis we can to no small extent quantify the input bits of information, and quantify the operations that have been performed in each utterance to articulate those uncoordinated bits into a cohesive whole.

I qualify with "to no small extent" because language is an unbiddable beast, fluid and ambiguous, and what you pickle in your specimen jar is never quite the utterance as it lived. Further, the operations described are solely syntactic, taking no account of the many other operations that surely obtain as we break through to finished utterance, operations springing from our sense of rhythm and sound and the myriad meshing of connotation in words and phrases. Nevertheless, however confined the beam might be, the transformational theory of grammar promised to throw strong light on the processes of language.

Its Promise for Analyzing Children's Syntax

As Chomsky and his followers were refining and developing their theories, linguists in education began to see what a powerful tool the new approach could prove for analyzing children's language. Since the 1930's, researchers had been counting the different kinds of syntactic structures children used at each age, and the proportionate number of times they used them, thus napping their syntactic development. But none of the grammatical theories on which these analyses were based clarified as transformational grammar does

the hierarchy of complexity involved. Until this time (some ten years ago) children's syntactic development had been seen more-or-less as adding this or that structure to their repertoire as they matured, using more subordinate clauses, for example, or branching out into first the present, then the perfect, participles. Now the transformationalists, showing the finished sentence as the culmination of various syntactic operations, traced the way in which the input bits of information are processed into meaningful relation to each other.

An example will indicate the promise the theory holds for analyzing the language of children. Basic information to be conveyed might be expressed in very simple form, each nub of information constituting its own entire sentence: "I went to town. I saw Aunt Jessie". It is obvious to us that these two sentences can be condensed, for example into a subordinate and a main clause, bringing the two pieces of information into relationship with each other: "When I went to town, I saw Aunt Jessie". Further, we can see how the resulting larger unit made up of the two clauses can be further condensed so that relationship to a third element of information can be presented: "Seeing Aunt Jessie when I went to town, I remembered that...". Or supposing Aunt Jessie was wearing a hat, and the hat was made of feathers, and the feathers were green. Instead of stringing out the time sequence of happenings in separate sentences, with more sentences added on for the descriptive details, we might process all the information through various operations until we arrived at pinpointing the precise juncture of circumstances we wish to convey, with: "Seeing Aunt Jessie's green feather hat when I went to town, I remembered that...".

According to the transformationalists, then, our minds carry out such series of operations, transforming the deep structure of our thought into the surface structure of the actual utterance. And certainly there are no operations in this example that we as adults would find difficult to carry out. But teachers will doubtless spot at once the stage of transforming where their particular children would start floundering. Two nubs of information into one they might manage; the other children could subordinate the two combined nubs to a third; but then soon we are into structure that we recognize at once as totally untypical of children's talk or writing.

An account of the major study of children's linguistic development, that of Hunt (1965), will be found in the next chapter. Here I shall continue with my excitement as I read the research, and my worries.

Doubting Own Practices, Doubting Alternatives

Articles and monographs began to appear advocating drill purported to advance the children along the way to linguistic maturity. Children were to juggle with different structures, condensing and combining to produce longer, more informative clauses and sentences than research was finding typical of their particular age level. I began to worry that the sort of writing we did in our class, useful and satisfying though we often found it, might not be helping the children develop mastery of those structures posited by the researchers as indicative of syntactic mastery. But at the

same time I was increasingly convinced that what I read in the research about children's language abilities was not entirely confirmed by classroom observation. Running simple analyses of writing as it was produced, I found syntactic characteristics to vary enormously from piece to piece, according to the purpose of the writing. I searched for studies outlining children's language development that took account of the many different kinds of language they use. There were studies that investigated what, if any, difference was found in language produced by children of differing I. Q., or sex; but of studies investigating the results of difference of purpose, there was virtually nothing. I therefore began to doubt that we could be nearly as certain as research claimed about just what structures children had mastered and characteristically used at what age. And if we haven't comprehensively ascertained what children are actually capable of, how effectively can we help them progress?

Defining the Areas of Concern

The first big question, then, was whether children's syntax does in fact, as I suspected, vary according to circumstance. If it does, significantly, then outlines of children's syntactic development will have to take this into account if they are to be valid, mapping with multiple contours. And once we know something about children's typical performance in different kinds of language, then we can study the performance of different kinds of children in the different kinds of language, e.g. children differing in I. Q. or sex. We can also look at the children's reading ability in connection with the characteristics of their written syntax not just in general but in particular kinds of writing.

Second, the relationship between complexity of syntax and what might be judged effective language use was not at all clear. It seemed very likely that the ability to condense input elements into an increasingly precise hierarchy could prove valuable in closely-reasoned argument, for example, or perhaps in complicated instructions; but in description, say, or narrative? And the question becomes even more taxing when asked about children as they talk and write. As a first step, we needed at least to know whether complex syntax and what was judged generally effective language use coincide. An exploration into a possible causal relationship might follow; but first we needed to know if there were at least a correlation.

Third and last, I was bothered by the way in which many of the language samples for research analysis had been gathered. We all know what lack of motivation does to children's general performance; and I couldn't help suspecting that what was being presumed typical output in several studies was actually the product of only very half-hearted effort. How valid, therefore, was the assessment of syntactic capabilities? I wanted to see the analysis of language samples that sprang from lively interest, and whether the syntax varied at all with the extent of that interest. I also wanted to know if there were any correlation between syntactic performance and language that children assessed themselves as having accomplished successfully.

Designing the Study

The areas of concern were wide, and no study I undertook could hope to come up with definitive answers. But by limiting the inquiry to a relevant question in each area, I might come up with some pointers both for future research and even for classroom guidance whilst the further research was underway.

To explore the influence of circumstance on syntax, specifically I would analyze children's syntax as they wrote in different modes (narrative, description, exposition and argument), and then compare these findings with the currently accepted norms of performance. At the same time I would analyze for differences from mode to mode according to I. Q., sex, or reading achievement.

To explore the relationship between syntax and effectiveness of expression, specifically I would compare children's syntactic performance in the different modes and their grades for content in those pieces of writing as awarded by experienced raters. I would also compare syntactic performance with incidence of certain kinds of language found in previous research to be characteristic of successful users of language.

To explore the influences of children's attitude on their syntax, specifically I would engage the children's active interest in the writing, give them some free choice, and then ask their opinions about various aspects of the project.

I was working mainly with fourth graders, so would carry out the research with them. Hunt (1965) had analyzed syntax at this level, so there would be data for comparison.

Before continuing with the account of how the study was carried out, let us put it in the context of what research so far had to offer on the subject. The following chapter gives first an overview of the two main approaches to research in children's language, and then a summary of findings related to the specific questions I planned to pursue.

Summary

Excited by transformational analysis of children's syntax, but unsure about the wisdom of rushing to apply findings in the classroom, I planned to study a varied five-week output of fourth grade writing, in the hope of finding pointers in the following main areas of concern:

1. Are outlines of children's syntactic development valid if they do not take the circumstances of language production into account? Specifically: does children's syntax vary from mode to mode?
2. How important is syntax in effectiveness of expression? Specifically: how does syntactic performance compare with grades for content, and with incidence of language functions found characteristic of effective users of language?

3. Is syntax influenced by attitude? Specifically: how does syntactic performance compare with children's preferences and self-assessment?

CHAPTER II

INVESTIGATION OF SCHOOL CHILDREN'S LANGUAGE

Two Approaches

Investigation of the language of school-age children falls into two main categories, one investigating the language in virtual isolation, the other taking into account the situation in which the language is produced, circumstances such as purpose or intended audience.

The first category of research dates from the seminal work of Bloomfield (1914, 1933), whose recording of the many American-Indian languages established the details of linguistic analysis followed for many years. Educational researchers perceived the usefulness of his approach, and in the 1930's several studies of children's syntax were carried out. One early study that laid the basis for much subsequent research was that of LaBrant (1933), who analyzed the writing of nearly a thousand pupils in grades four through twelve. There were also two studies of the same year that looked to some extent into the influence of mode on sentence structure (Seegers, 1933 and Frogner, 1933); but these preliminary investigations taking content into account were not followed up. In the resurgence of linguistic investigation in the 1960's (the main studies being those of Strickland, 1962, Loban, 1963 and Riling, 1965), the characteristics perpetuated were the large populations, language samples usually from a one-shot elicitation, and above all an objective count of syntactic structures with emphasis on chronological development. The two foremost syntactic analyses using transformational theory, those of Hunt (1965) and of O'Donnell, Griffin and Norris (1967), although throwing considerable light on overall development, nevertheless afford only a general view of language. All we know of Hunt's samples is that they consisted of a random thousand words written by each student during a trimester, under the teacher's supervision. Those of O'Donnell, Griffin and Norris were responses to questions about short moving pictures, calling mainly for narrative. What may be the various characteristics of language used for various purposes by various people in various situations remain unknown.

In the second category, several studies in early speech have recognized the importance of circumstance (for example Goodenough, 1938; Smith, 1935; Cazden, 1965). But in the language of school-age children it has been acknowledged only recently. The best-known study is that of Labov (1970), who reports great differences in children's speech when the interviewer changes his approach. Other useful research is that of Jensen (1971), comparing fifthgraders' casual and careful speech. In England, where linguistics has traditionally been related to circumstances, Lawton (1968) compared performances of boys from different socio-economic backgrounds in different language tasks. But so far no general picture emerges. It is largely impossible to generalize from the situational studies, because of specialized populations, or informality of observations; there is very little writing; and there are very few specific syntactic details. Nevertheless, these studies make it clear that language does indeed differ from

one situation to another, and encourage the researcher to investigate the nature and extent of the differences.

Research Related to Specific Questions of the Study

Syntax in Children's Writing

Developmental Syntax

The most relevant studies here are those of LaBrant (1933) and Hunt (1965). LaBrant found that dependent clauses increased as the writers grew older, that the relation between sentence-complexity and chronological age was closer than between sentence complexity and I. Q., and that the least-used dependent clauses were those of condition, concessions, place, purpose, result and comparison. Her findings were taken as showing that clause length remains fairly constant in grades 4 through 12, and that increase in sentence length at high age levels is due mainly to the addition of more subordinate clauses.

Following LaBrant, virtually all studies of children's language investigated mean sentence length, mean clause length, and proportionate number of subordinate clauses were usually specified, whether noun, adjectival or adverbial; and if adverbial, what kind.

Hunt (1964) followed this analysis; and then in addition broke it down further by investigation of the structures within the clause, such as coordinated structures, noun forms, different kinds of modifiers, main and auxiliary verbs. Hunt analyzed a thousand words produced in normal class writing by each of nine boys and nine girls of average I. Q. in grades 4, 8 and 12.

One of the first tasks he set himself was to define a unit of language more satisfactory for objective count and comparison than the sentence. As any teacher knows, some long sentences are a characteristic of immature, rather than mature, writing, with strings of "and" "and" "and"; and anyway fourth grade punctuation is hardly the most reliable indication in the world of where one sentence ends and another begins. Following moves in this direction in earlier studies, notably that of Loban (1963), Hunt established what he called the T-unit (minimal Terminable unit) as the most reliable. This consists of a main clause with all of the dependent subordinate clauses it may have. "I went to town yesterday and I met Aunt Jessie" is one sentence, but two T-units. The average length of T-unit is easy to reckon, here obviously 10 divided by two, i.e. five words. In "When I went to town yesterday, I saw Aunt Jessie" we have only one T-unit, this time 10 words long. So comparing number of words in the sentence, the first and second are the same. But comparing T-unit length, the second is longer. This is an objective confirmation of one's feeling that the second sentence is in fact presenting one larger unit. Supposing we added to the first sentence "and she had a package", we have one sentence 15 words long, or three T-units an average five words long.

Now supposing we add the same information to the second sentence, but condensed to "with a package". The second sentence is now 13 words long, shorter than the first. But we still have only one T-unit in that second sentence, "with a package" being meshed into the main clause, and that T-unit is now 13 words long. Again, this is an objective way of indicating that the first sentence is longer, but the second is actually handling a larger, articulated piece of information.

To reckon the average T-unit length in a whole passage, the procedure is the same: simply count total number of words and divide by total number of T-units.

Not surprisingly, Hunt found length of T-unit to show a steady increase from grades 4 to 8 to 12. The average length in Grade 4 was 8.6 words; Grade 8, 11.5; Grade 12, 14.4 words. In addition to average T-unit length, he also investigated incidence of T-units less than nine words long, and of T-units more than 20 words long. The first decreased, the second increased, significantly from grade to grade. Syntax is very far from being the whole story, as this study reiterates on most pages. And T-units are far from being the whole story of syntax anyway, as will be made clear below. But they <u>are</u> one indication of how much information a speaker or writer is articulating in one unit. For example a child I know was into third grade and still not, it seemed, really writing, at least not producing the biographical gems and stories that so many children do; thus causing his language-oriented mother both pain and puzzlement. Reckon the T-units in the following, however: "When I grow up I will not get mareed because I will not put up with chrelden because they ushley bother ther Father. And beesides when I grow up I will be a mathbotishen". At least he apparently didn't need sentence-combining drill.

Once the number of main clauses has been counted, and the number of subordinate clauses, the subordination ratio is simple to compute: the number of subordinate clauses divided by the number of all clauses, expressed as a percentage. So the subordination ratio of the first sample sentence, both before the package addition and after, is 0%. The subordination ration of the second sentence, both before and after the addition, is $(\frac{1}{2} \times 100)\% = 50\%$. As might have been expected from the LaBrant (1933) study, Hunt found subordination ratio to rise from grade to grade: Grade 4, 20.5%; Grade 8, 24.5%; Grade 12, 33.6%.

The T-unit also provides the base for reckoning length of clause. Using the same sentences as above, we see that the first sentence has two main clauses without the added information about the parcel, three main clauses with, and no subordinate clauses. Average clause length is thus the same as the T-unit length in that sentence, five words long computed both before addition and after. In the second sentence, before the addition we have two clauses, one main with one subordinate, each an average of five words; after the parcel addition we still have only those two clauses, the parcel information being embedded into the main clause, which thus brings the average length up to 6.5 words per clause. Thus we see clause length as an indication of the ability to condense and manipulate information beyond the stage of reducing from main clause to subordinate.

Again as might be expected, Hunt found clause length to increase through Grades 4, 8, 12. In Grade 4, he found it to be 6.6 words; in Grade 8, 8.1 words; in Grade 12, 8.6 words.

From these figures, and from his analysis of the writing of "superior adults", in which clause length was greatly increased, Hunt concluded that LaBrant had been mistaken in supposing clause length to remain relatively constant, and have a ceiling. He argues that it is longer clauses, rather than more subordinate clauses, that ultimately lengthen the T-unit of the superior adult writer.

Another very thorough and useful study which followed Hunt (1964), that of O'Donnell, Griffin and Norris (1967), analyzing oral language in Kindergarten, Grades 1 and 2, and both oral and written language in Grades 3, 5 and 7, concluded that deletion transformations (i.e. what we have been calling 'condensations') may be better indicators of development than are subordinate clauses.

We can get an idea of what is in play if we look again at the second of our sample sentences: "When I went to town yesterday, I saw Aunt Jessie with a package". T-unit length 13 words, average clause length 6.5 words. Suppose we condense this to "I saw Aunt Jessie in town yesterday with a package": we now have only one main clause with no subordinating clauses, and the T-unit only 10 words long. But our clause is also 10 words long, i.e. longer than before.

Obviously these complexities have to be borne in mind in the study of children's developmental syntax. For the present, however, they need not tax us unduly at fourth grade level. Hunt has clearly shown that T-unit length increases with chronological maturity, and his average figure for fourth grade is 8.6 words. Similarly he has shown that clause length increases, and his average clause length for fourth grade is 6.6 words. The subordination ratio increases, and his fourth grade average is 20.5%. The present study will investigate whether these figures apply in different kinds of writing.

Having obtained the general picture from these three areas of T-unit and clause length and subordination ratio, Hunt then went on to investigate the within-clause structures. These, with his findings, will not be reviewed here, since all of the structures which Hunt found to vary significantly from Grade 4 to Grade 8 were for that reason investigated in the present study, and will therefore be reported in following chapters. Here we shall simply note that Hunt found the incidence of the majority of the more than 20 within-clause structures that he investigated either to increase or to decrease significantly between Grades 4 and 8. Almost all of the structures he investigated were in fact used by the fourth graders, but the older children used much more often than the younger ones the structures by which a clause, or even larger unit, is reduced to a word or phrase.

Syntax and Mode

Two early studies, those of Seegers (1933) and Frogner (1933), both addressed themselves specifically to the investigation of the influence of mode on sentence structure. Seegers analyzed 604 papers from Grades 4, 5 and 6 representative of argument, exposition, and narrative and description combined, and compared the numbers of different kinds of subordinate clauses by grade and mode. Unfortunately his account is extremely brief, and his findings report raw data, which it is difficult to assess. It certainly appear, however, that argument produces more clauses of every kind, except adjective clauses, in which it is outnumbered by exposition. Narration and description generally contain fewer clauses of all kinds. Almost all clauses increase from grade to grade. Frogner investigated three kinds of composition: narrative, a social news letter, and exposition, in Grades 7, 8 and 9. In all three grades, exposition occasioned the highest percentage of sentences with dependent clauses, narrative the next highest, the letter the lowest. She does not specify the different dependent clauses.

More recently, Johnson (1967) had 16 third grade children write in narrative, description and explanation. She found that children wrote most in narrative and more simple sentences in narrative, with more complex sentences in explanation. Unfortunately the language samples were very short, it is not clear whether they fell definitely into the three modes, and the syntactic analysis is very slight.

Watts (1944) did not investigate mode specifically, but had children write on subjects different from those of LaBrant (1933), and found the proportions of kinds of clause different from hers.

Not unrelated to investigation of mode is the British research of the past decade (Robinson, 1965, Newberry 1967, and Lawton 1968) which has been investigating the incidence among different populations of abstract and concrete language. The syntactic analysis of the two different kinds of language is somewhat different from recent syntactic analysis in this country; nevertheless it substantially indicates a higher incidence in abstract language of the structures found by Hunt to increase with chronological age.

This is the extent of investigation into mode and syntax. There is in fact none, at any age level, which has subjected language in different modes to rigorous syntactic analysis. It seemed to me, however, that indications of the influence of mode were certainly strong enough to question the figures currently accepted as delineating the extent of fourth grade syntactic performanced.

Syntax and I. Q.

Findings conflict on the correlation between syntax and I. Q.

LaBrant (1933) found there was some correlation with mental maturity within the same age range, but both she and Frogner (1933) found the subordination index to relate more closely to chronological than to mental maturity. Watts (1944) found mental maturity more important. Hunt

(1966) specifically investigated differences between students of average I. Q. and those of superior I. Q. and found the superior students at fourth grade level to produce significantly longer T-units and significantly more subordination, but not longer clauses.

In short, I. Q. and syntax appear to be in some way related, but the precise relationship is as yet unknown.

Syntax and Sex

LaBrant (1933) found girls to write more than boys, but otherwise, though the girls produced slightly longer clauses and slightly more subordination, the sex differences were very small. Hunt (1965) found clause length for boys and girls the same at fourth grade level, but the girls produced significantly more subordination and markedly, though not significantly, longer T-units. However by eighth grade the boys were catching up with the girls or had surpassed them on almost all of the structures he analyzed. O'Donnell, Griffin and Norris (1967) found much the same pattern, the boys in their study behind the girls in Grades 3 and 5, surpassing them by Grade 7.

On the whole, then, girls in fourth grade might be expected to show rather more syntactic maturity than boys.

Grading

Grades and Modes

There is even less investigation of the relationship between grades and modes than there is between syntax and modes, with only two studies addressed to the question. Braddock, Lloyd-Jones and Schoer (1963) concluded from Kincaid's (1953) study of college freshmen that the performances of better writers did not vary significantly whether they were writing in exposition or argument, but those of poor writers did.

Veal and Tillman's (1971) study of writing in narrative, description, exposition and argument in Grades 2, 4 and 6 found significant differences among modes. In Grade 4 there were three significant differences: the mean grade for argument was lower than that for description and lower than that for exposition; the grade for exposition was higher than that for narrative. Argument received the lowest grade in Grade 4, exposition the highest. In Grade 2 there were no significant differences among the modes. In Grade 6 there were five, in which those found in Grade 4 were included. Grade 6, like Grade 4, received the lowest grade in argument, the highest in exposition. Differences from grade to grade were greatest in exposition, with Grades 4 and 6 gaining increasingly high marks in this mode. Grading was carefully carried out, and rater reliability was fairly high. Unfortunately, however, little is reported about the writing itself. The topic for each mode is not reported, for example, nor the extent to which it was successful in eliciting writing in the required mode. The study

therefore affords interesting indications of possible further research, but as it stands hardly constitutes a basis for generalization.

Grades and I. Q. and Reading Comprehension

The fullest investigation of the interrelations among the language arts is reported by Loban (1963), who found reading, writing, listening and speaking to show a positive relation. He found subjects in the lowest and highest quartiles in writing to be also lower and higher in reading achievement, and he found this reading-writing relationship to grow closer as students progressed through the elementary school, with the gap widening between those proficient in the two and those not proficient. He also found vocabulary, success with group tests of intelligence, and proficiency with language to constitute a cluster of traits, or possibly different manifestations of the same trait.

A difficulty with Loba's findings, however, is that the children's writing was evaluated by one piece of work only, elicited by a picture. Also, his criteria (1963, pp. 25-26) are syntactic, organizational (to a lesser extent) and mechanical, with small attention to interest and personal flavor.

Grades and Sex

Here, also, there has been no major study in the elementary school. Interesting research by Tabachnik and May (1965) indicates the complexity of variables to be taken into account. In their study, for example, findings were reversed by nothing more than a slight change in stimulus. When 200 boys and girls in Grades 3 and 6 were given an organized (realistic) sketch to stimulate creative writing, the girls outperformed the boys. Another 200 were given an unorganized (abstract) sketch, and the boys outperformed the girls. A third 200 were given both pictures, and could choose which to write about. Here the girls again outperformed the boys, but not as much as in the first group.

Language Functions

The main research on which this section of the present study was built is that of Loban (1963), which is treated in detail in the following chapter. Loban found the high group of students in his study used more tentative statements, generalizations and figurative language than the low students, and fewer irrelevancies. (These different kinds of language he called 'language functions'). Therefore I expected these to vary in my study according to the population variables of I. Q. and reading comprehension. Relationship of language functions to the other population variable, sex, remains unresearched, as it does to mode.

Syntax and Content

Given the research on syntax and on grades summarized above, it seems reasonable to expect some correlation, in the population variable of I. Q., between what is called maturity in the one and superiority, as evaluated by raters, in the other. Some of the research explicitly directed to the relationship between syntax and grades tends to confirm the expectation. Potter (1967) found that the writing of 20 high school sophomores rated good compared with 20 bad contained more long T-units, fewer short T-units, twice as many uses of the passive, more modification, more verbal structures of every type; subordination he found the same for both groups. It should be noted, however, that he reports raw data only, with no statistical analysis. Biesbrock and Veal (1969) found some correlation between syntactic maturity and raters' evaluations at the elementary level. Mellon (1969), however, found that when a small subsample of the total writing (seventh grade level) of his study was graded, the experimental group, which produced significantly more mature syntax, was not rated highest. Further, Jurgens and Griffin (1970) analyzed 269 very carefully graded papers from Grade 7, 9 and 11 for T-unit length, clause length and subordination, as well as various fluency measures. In Grade 7, the mean T-unit length of the medium group was significantly longer than that of the low group. Apart from that sole occurrence, there was no significant difference between any of the groups in any of the grades in any of the three grammatical structures. Fluency was the only significant difference found. On the relationship between syntax and content as evaluated by grades, therefore, research supports no definite conclusions.

Children's Self-Assessments and Preferences

There has been no research into elementary school children's self-assessment of their writing, and very little into their preferences.

Edmund (1960) found from the papers of 64 fifth and sixth graders that very few of them wrote about their problems, while Bikerstine (1968) found with 363 fourth graders that they did. It is hardly surprising that the studies should disagree since they are both based on only one piece of writing from each student. More revealing are the findings of Clark (1954), the teacher of 36 sixth graders, who gave a list of the subjects his class had responded to most freely during the year. These included follow-ups of conversations about pets and vacations for example, fear and annoyances, letters to Japanese penpals, those arising out of other classroom work and activities, some stimulated by pictures from magazines. There are no discernible conclusions to be drawn from the list, except that an intelligent, sensitive teacher having his class devote time and energy to a regular writing program will come across any number of subjects interesting to write about.

Summary

Investigation of school children's syntax has very largely disregarded the circumstances in which language is produced. Investigation of school children's language which takes account of the circumstances is very sparse and does not include rigorous syntactic analysis. There are therefore very few indications as to the findings we might expect in this study.

1. Does children's syntax vary from mode to mode?
   Studies from the 1930's indicate that it may.
2. How does syntax compare with grades for content?
   Such findings as there are conflict.
   How does syntax compare with language functions found characteristic of effective language users?
   Some correlation is indicated between syntax and generalization and tentative language.
3. How does syntax compare with children's preferences and self-assessment?
   This area is unexplored.

CHAPTER III

CARRYING OUT THE STUDY

Before looking at details of how the study was carried out, let us see the precise questions it was designed to answer.

Specific Questions to be Answered

I. Syntax
   1. What are the differences, if any, in grammatical structures in fourth grade writing in narration, description, exposition and argument?
   2. How do these differences relate to I. Q.?
   3. How do they relate to sex?
   4. How do they relate to scores on a reading comprehension test?

II. Syntax and Content
   1. If a piece of fourth grade writing contains more of the grammatical structures found by previous research to be characteristic of older children, is that piece of writing also likely to earn higher marks for content from an experienced evaluator?
   2. If a piece of fourth grade writing contains more of the grammatical structures found by previous research to be characteristic of older children, is that piece of writing also likely to contain more of certain kinds of language found characteristic of effective users of language?

III. Children's Opinions and Preferences
   1. Is the writing that fourth graders most enjoy likely to contain a higher proportion of these grammatical structures and/or receive a higher grade?
   2. Does the writing that fourth graders assess as their best contain a higher proportion of the grammatical structures and/or receive a higher grade?

The Children

The population of the study consisted of 40 children in two fourth grade classes in an elementary school in a small city adjoining Syracuse, New York. The school neighborhood is white working class, with testing data for the children showing, initially, lower reading readiness scores than in other schools in the district and state, then lower reading scores throughout the grades, with a progressive decline in I. Q. In the two fourth grades there were 20 boys and 20 girls who completed all five weeks of the writing. (The other 4 children in fourth grade were absent for one week or more of the study). The 40 children had a mean I. Q. score, on the Otis-Lennon test taken in the previous month, of 100.5.

The range was 72 to 128, standard deviation 12.4. Their mean age was 9 years 9 months; range, 9 years 3 months to 11 years 1 month.

In order to assess the significance of the variable of I. Q., the 40 children were divided into 3 I. Q. ranges, as follows:

No. of Children	Mean I. Q.	Range of I. Q.
9	117.8	112 - 128
24	98.8	90 - 110
7	84.4	72 - 89

In order to assess the significance of the variable of sex, division of the 40 children gave the following:

No. of Children	Mean I. Q.	Range of I. Q.	Mean Age	Range of Age
20 boys	102.0	72 - 125	9 yr. 8 mos.	9.3 to 10.4
20 girls	99.1	87 - 128	9 yr.10 mos.	9.4 to 11.1

A third grouping was made in order to assess the significance of the variable of scores on the reading comprehension test. The test was the comprehension section of the Gates-MacGinitie Reading Test, taken the week before the study began. The mean standard score for this test at this level is 46.4, the standard deviation 7.75. Out of the 24 children in the medium I. Q. range, there were 5 girls and 3 boys who had a standard score of 41 or below. These 8 children were then matched as closely as possible in sex and I. Q. with 8 who had scored 47 or above. That is, a boy with an I. Q. of 103 scoring 36 was matched with a boy with an I. Q. of 105 scoring 55; a girl with an I. Q. of 90 scoring 38 was matched with a girl with an I. Q. of 90 scoring 48, and so on. This resulted in two groups, each with 5 girls and 3 boys, as follows:

Reading Comprehension	Mean I. Q.	I. Q. Range	R. C. Score	R. C. Score Range
8 low group	95.6	90 - 107	37.5	34 - 41
8 high group	98.4	90 - 105	51.0	47 - 55

It will be seen that the mean standard reading comprehension score for the low group is over one standard deviation below the mean for grade level. The mean score for the high group is above grade level.

Collecting the Writing Samples

I met with the two classes separately, but the procedure with them was identical.

On the first day of the study, I introduced to the children the idea of their writing to children their own age in England. The proposed recipients had some reality for the children, as I had told them earlier in

the year about my visits to schools in England, and had played them a tape of these English nine-year-olds talking with an American visitor about life in his country. They understood, then, that although the English children spoke in a very funny fashion, they were really quite like themselves. But they could see there was a great deal that the children there needed to know about the lives of children here, and five weeks of writing seemed none too many. Obviously I guided the discussion of how to organize the projected mass of material, since it was essential to the study to have one week of writing in the narrative mode, one in the descriptive mode, one in exposition, one in argument, and one week for free choice writing. However, the divisions seemed very clear and logical to the children, and were readily adopted.

Narration

During the four writing days of the first week, the children would recount for their English peers their favorite television shows with a story line (mainly situation comedy). This pedestrian narration was elicited rather than original story-telling because the children had had little practice in original writing, and many would have been stumped if asked to come up with a story of their own. The television stories presented no problem, since all the children spend long hours watching these programs.

Description

The second week, they would describe what people, places and things are like in America.

Exposition

The third week, they would explain how we do various things over here, such as how we go shopping, or camping, or how we play baseball or basketball, or how we make snowforts, fudge, ashtrays out of old phonograph records, and so on.

Argument

The fourth week, they would tell the English children why they liked or did not like various things, especially those things in their lives that were different from over there, such as not having longer holidays, bigger houses and yards.

Free Choice

The fifth week they could write about anything at all that they wanted to and had not got around to during the preceding four weeks.

The children were informed that all their writing would be typed, with any errors of spelling or punctuation corrected. They were also informed that when all the writing was finished, they would meet individually with me, and would have a chance to look through their typed output, and decide if there was anything that they would rather not send. They were therefore

encouraged to write as much and as freely as they wished.

After this initial launching of the project, very little guidance was called for. As each new week began, with its new topic, a few minutes were spent in refreshing memories about the sort of thing they were going to write about that week. Topics would be brainstormed and written on the chalk board, where they would remain during that week. Sometimes a child would have a bright idea during the week and add it to the list. This procedure proved hardly necessary, as writers were never dependent on each other for topics, and of course the chalkboard list was in no way prescriptive. It was, however, a simple way to establish the mode of the week.

I have tried to convey in this brief account some idea of the children's enthusiastic acceptance of the project, and of its method of organization, since a basic tenet of this study is that the context of language samples should be known. Certainly the children's grasp of what they were embarking on proved fundamental to the carrying through of the research in one particular aspect. I had not been entirely confident of the children's sticking clearly to one single mode throughout the writing of each day, let alone throughout the entire week, and had envisaged an amount of direction. This, however, proved unnecessary.

Interviews

During the sixth week of the study, I interviewed each writer individually for approximately thirty minutes.

First, the children read through their entire five weeks' writing, which had been typed with each week's work on a separate page or pages, errors of spelling and punctuation corrected. They were then asked the following questions.

1. Which week's writing did you enjoy doing the most? Why?
2. Which do you think you did best? Why do you think it's the best?
3. Can you think of anything you have ever written that you enjoyed writing more? What? When? Why?
4. Is there anything in general that you usually enjoy writing? Why?
5. What sort of writing would you most like to learn to do well? For pleasure? For usefulness?
6. Is there anything here that you would rather we didn't send to England? Is there anything you don't want other people in the class to see?
7. Which do you think the children in England will most enjoy?
8. What do you hope we get back from them?

I made notes as the children answered.

Thirty minutes allowed time for the children to think aloud through their reactions to the questions, refer back as much as they wished to

their writing, change their minds if they wanted to, and so on.

Responses in the interviews completed the material collected from the children.

Syntactic Analysis

I analyzed the syntax of all the writing of all 40 children who completed the project with a 30-item index. These items are, with only two exceptions, found in Hunt's (1965) study to increase or decrease with chronological maturity. The two exceptions are Item 1 - Number of Words Written, which Hunt did not investigate, and Item 5 - T-units 9 to 20 words long, which stayed the same. The following were found to decrease: Item 2 - "And" Between T-units, Item 4 - T-units less than 9 Words, Item 14 - Unmodified Nominals, and Item 16 - Inflected Genitive. The rest were found to increase between grades four and eight. The infinitive as modifier, found by Hunt to increase, proved too rare to warrant statistical analysis, and was abandoned. The "perfect" was omitted also, as dialectal forms confused the count, and incidence was very low anyway. Otherwise, the only items omitted which Hunt found to increase or decrease significantly in his study are those which showed no great change between grades four and eight (main verbs, progressive forms with auxiliary, predicate adjectives) and his two items related to sentence length; (I considered Item 2 - "And" between T-units the most revealing measure of sentence structure at fourth grade level.)

The only writing not analyzed was direct discourse (4% of the writing). This was included in the count for total number of words written, but was omitted from syntactic analysis as its use decreases with age, and thus the noun clauses resulting from direct discourse confuse findings about other noun clauses, which increase with age (Hunt, 1966).

Each child's total output, each week, was taken as a whole. Thus a child's writing in the narrative mode, in the descriptive mode, in the expository mode, in the argumentative mode, and in the free choice week, were each analyzed separately, for length, ratio or incidence of each of the 30 items.

The 30 items fell into seven categories. The category numbers and item numbers given below are maintained throughout the study.

Category (i) General Characteristics

Item 1 - Number of Words Written
Item 2 - "And" Between T-units

Category (ii) T-units, Clause Length and Subordination

Item 3 - T-unit Length
Item 4 - T-units Less than 9 Words
Item 5 - T-units 9 to 20 Words Long
Item 6 - T-units Longer than 20 words
Item 7 - Clause Length
Item 8 - Subordination Ratio

Category (iii) Kinds of Subordinate Clause

Item 9 - Noun Clause as Direct Object
Item 10- Noun Clause as Other than Direct Object
Item 11- Adjective Clause
Item 12- Adverbial Clauses of Time and Place
Item 13- Adverbial Clauses Other than Time and Place

Category (iv) Modification

Item 14- Unmodified Nominals
Item 15- Adjectives as Modifiers
Item 16- Inflected Genitives as Modifiers
Item 17- Phrasal Genitives as Modifiers
Item 18- Prepositional Phrases as Modifiers
Item 19- Past Participles as Modifiers
Item 20- Present Participles as Modifiers
Item 21- Total Nonclausal Modifiers
Item 22- Complexity of Nominals
Item 23- Nominals with a Count of Four Plus

Items 22 and 23 were computed for the present study as follows. A nominal received a count of one for each modifier, and also for nominalized verbs and clauses related to it. In an effort to assess not so much amount of modification as depth of modification. Item 22 then consisted of ignoring the nominals with one count only, allowing two points for a noun with two counts, six points for a noun with three counts, 12 points for a noun with four counts, and 20 points for a noun with five counts. Item 23 was another way of arriving at a similar assessment, nouns with a count of four or more (i.e. four modifiers or nominalizations). Technically, these items do not belong solely in the category of modification, as a count was made for nominalizations also. However, these proved to be so rare, and never in conjunction with any other modifier, that in fact the counts in Items 22 and 23 refer solely to modification.

Category (v) Nominalization

Item 24- Infinitival Nominals
These are infinitives in nominal positions, for example, "To collect coins is very interesting". Adjective complements, infinitival predicate complements and infinitives needed to complete a verb ("He tried to escape") are not included.
Item 25- Gerunds

Category (vi) Verbal Auxiliaries

Item 26- Use of the Passive
Item 27- Six Modals (shall, should, will, would, may, might)
Item 28- Can and Could

Category (vii) Non-clause, Non-complement Adverbials

Item 29- Single Word
Item 30- Phrasal

Adverbials of time, place and motion were omitted, as found by Hunt (1965) to decrease with age; leaving manner, degree, cause, comparison and purpose which increase. Sentence adverbials ("generally", "perhaps", etc.) are included, and infinitives of purpose ("He left to go back home"). Attributive adverbs ("very", "really") were omitted, as they show no clear chronological development.

Method of Computation

The number of occurrences of a structure in each child's writing in each mode was divided by the number of T-units written by the child in that mode. This procedure was not followed by Hunt in his first study (1965), but has been in his, and virtually all other, subsequent work.

Language Functions

I analyzed each child's work each for occurrence of four kinds of language: tentative statements, generalizations, figurative language and irrelevancies.

This analysis was based on the procedures of Loban (1963) in analyzing the speech of elementary school children. Attempting a qualitative, as well as quantitative, assessment of his language samples, he examined subjects' transcripts to determine the categories of language which occurred. His findings showed four of these categories which are applicable in the present study to occur with marked differences in frequency according to students' high or low ability (this ability determined in his study by a number of language tests and assessments). These are the four categories listed above. High students produced more tentative statements, more generalizations and more figurative language than the low students, and fewer irrelevancies. The procedure for the assessment of each is discussed below.

Tentative Statements

It is difficult to ascertain exactly what Loban measured. He says, "Supposition, hypotheses, and conditional statements occur much less frequently in the language of subjects lacking skill in language. The low subgroup furnishes only a few examples of this use of language whereas the high subgroup uses language in this way from the kindergarten year through the sixth year, employing such words as perhaps and maybe more often than do the students who have difficulty in expressing themselves". (1963, p. 53) The examples he then gives from capable speakers are statements containing these words or "I'm not sure."

I was guided by the particularlized indication here, and counted statements similar to Loban's examples.

Generalizations

Loban did not define this function in any way, nor give examples. I interpreted it to mean statements that form general notions or propositions from particulars for example "Mr. Smith gives a lot of homework. All men teachers give more homework than women teachers".

Figurative Language

Again, Loban gives no definition, but he does give two examples, that the rounded top of a fence was noted to look like little hills, and that a girl about to cry had a face that was clouding up. In the present study, examples were found to consist solely of similes, and were clearly indicated by "like".

Irrelevancies

Loban gives neither definition nor example. I interpreted the term to mean comments which were not pertinent to the matter being discussed, for example a list of the good players in the school interrupting an account of how to play a game.

Grading

Typed papers, with spelling and punctuation errors corrected, were given to four experienced, independent raters. Each week's work for each child was typed on a separate page or pages, with the different modes indicated on the papers. Numbers were randomly assigned to papers within modes, students receiving a different number in each mode.

I instructed the raters to grade on a four-point scale (four points being the highest) both for general interest of content and for organization of it suitable to that mode. We discussed what was meant by this. I advised raters not to agonize over decisions, but to work rapidly, in accordance with the recommendations of Britton, Martin and Rosen (1966) and Deiderich (1966).

The points amassed by each child, each week, were then added, i.e. giving a total anywhere between 8 (if all four raters awarded one point only for interest, and one point only for organization) and 32 (if all four raters awarded four points for interest and four for organization). For ease of reference, the number of points gained out of the maximum 32 is reported in the findings in per cent.

Free Choice Writing

The writing produced during the fifth, free choice week was needed for three purposes.

First, it was needed to compare free choice writing with other writing in amount, syntax, grades, language functions, and children's opinions; and was therefore counted, analyzed for syntax and for language functions, graded, and discussed in the interviews.

Second, it was needed to investigate how much children wrote in each of the four modes when they had free choice, and the nature of any other writing unclassifiable among those; and was therefore analyzed for these amounts.

Third, the free choice week functioned as a mini-replication of investigation into the four modes. Syntax of narrative written during the first week could be compared with fifth week narrative, and similarly with the other modes, thus confirming (or otherwise) findings for the first four weeks, as well as illuminating the fifth week's writing in the light of earlier figures.

Summary

Forty fourthgraders (20 boys and 20 girls) in a typical white, working-class school, wrote letters to their peers in England during five weeks (30 minutes a day, four days a week). The first week they wrote narrative, the second week description, the third week exposition, the fourth week argument, and the fifth week they could write what they liked.

The writing was analyzed syntactically week by week according to a 30-item index based on Hunt's (1965, 1966) research, which found these syntactic items to differ significantly between fourth and eighth grades. The population was such that in addition to exploring the syntactic performance of the whole group in different modes, the relationship of mode to the variables of I. Q., sex and reading comprehension could also be investigated.

Syntactic performance in the different modes, and in the different population groups, was then compared with grades for content in the modes and in the different population groups, as awarded by four experienced raters. Syntactic performance was similarly compared with incidence of certain language functions (considered characteristic of effective language users) in the different modes and different groups.

Children's preferences were investigated by studying what kinds of writing they chose to do when they had free choice, and by asking their opinions in individual interviews. They were also asked in the interviews to assess their own writing. These data were then compared with syntax, grades and language functions.

CHAPTER IV

FINDINGS: INFLUENCE OF MODE ON SYNTAX RELATED TO I. Q., SEX AND READING COMPREHENSION

This chapter presents the findings concerned with the outline of children's syntactic development, specifically:

Does children's syntax vary from mode to mode?
How do these differences, if any, relate to I. Q.?
How do they relate to sex?
How do they relate to reading achievement?

The chapter is divided into four parts, with findings grouped to answer each of these questions in turn.

Organization of Analysis of Data

The children wrote narrative for the first week of the study, description the second, exposition the third, argument the fourth. (They also wrote for a fifth week, but in that they had free choice, which is discussed in Chapter Six.) The syntax of each child's writing was analyzed, week by week, with a count for his or her performance in each of the 30 different structures of the syntactic index.

The syntactic data were then subjected to three groups of 30 two-way analyses of variance. In the first group, the two variables were mode and I. Q., for each of the 30 items of the syntactic index. In the second group, the two variables were mode and sex, for each of the 30 items. In the third group, they were mode and reading achievement, for each of the 30 items.

Statistical data from the first group of two-way analyses provide the findings of the first part of the chapter, reporting performance of the whole group from mode to mode.

Statistical data from the first group of two-way analyses also provide the findings of the second part of the chapter, reporting performance of the different I. Q. groups and any mode/I. Q. interaction.

The second group of two-way analyses furnish the findings of the third part of the chapter, comparing syntax of boys and girls and reporting any mode/sex interaction.

The third group of analyses furnish the findings of the fourth part of the chapter, comparing the syntax of the two groups differing in reading achievement and reporting any mode/reading achievement interaction.

The base for computation of the data was the T-unit. The number of times that a writer produced a particular item in a particular mode was

divided by his number of T-units in that mode. This was the figure contributed to the writer's group for computation of the group mean for each item in each mode.

Levels of significance are indicated as follows: significant at the .001 level; significant at the .005 level; significant at the .01 level. Significance at the .025 or .05 level will be stated.

Influence of Mode

Category (i) General Characteristics

Items: 1-Number of Words Written
2-"And" Between T-units

A significant difference was found in the number of words written in the different modes, as follows:

Narrative	Description	Exposition	Argument	F distrib.
441	361	309	303	5.69

The consistent decline might be seen as the influence of sequence, except that for the fifth week the number of words was back up to 363.

"And" between T-units showed no significant difference.

Category (ii) T-unit Length Clause Length and Subordination

Items: 3-Mean T-unit length
4-T-units shorter than 9 words
5-T-units 9 to 20 words
6-T-units longer than 20 words
7-Clause length
8-Subordination ratio

The different modes were found to differ significantly in all four T-unit measures, the pattern the same throughout: argument elicits the most complex language, exposition the next, narrative comes some way behind, and the least complex in description.

Findings show the disparity to be caused not by clause length, which shows no significant difference among the modes (6.9 in narrative, 7.1 in description and exposition, 6.6 in argument), but by subordination ratio. Table 1 details the relationships.

Table 1
T-unit Lengths and Subordination in 4 Modes

Item	Narrative	Desc.	Expos.	Arg.	F Distrib.
3-Mean Length of T-unit	8.7	8.4	9.9	10.4	11.17***
No. Per 100 T-units					
4-T-units shorter than 9 Words	59.9	62.4	49.6	47.4	8.40***
5-T-units 9 to 20 Words	38.2	35.8	46.0	47.0	4.81**
6-T-units longer than 20 Words	2.0	1.8	4.5	5.7	3.85*
8-Sub. Ratio in Percent	19.8	14.5	27.6	34.7	30.87***

Category (iii) Different Kinds of Subordinate Clauses

Items: 9-Noun Clauses as Direct Object
10-Noun Clauses as Other Than Direct Object
11-Adjective Clauses
12-Adverbial Clauses of Time and Place
13-Adverbial Clauses Other Than Time and Place

Findings here reveal the high subordination ratio in argument and exposition to be caused by adverbial clauses, as detailed in Table 2. The adverbial clauses other than time and place so frequent in argument consisted mainly of clauses of cause (63%), also clauses of condition (23%), with clauses of purpose, manner, concession and degree, in fairly equal parts, making up the rest. All these clauses were also found in the other modes, but to a lesser extent.

Table 2

Subordinate Clauses in 4 Modes: Rate of Occurrence Per 100 T-units

Item	Narr.	Descr.	Expos.	Arg.	F Distrib.
9-Noun Cl. as Direct Obj.	7.3	1.1	4.3	4.2	7.03***
10-Noun Cl. Other than Direct Obj.	1.5	0.8	1.8	4.2	1.96
11-Adjective Cl.	6.5	7.8	7.3	8.3	0.14
12-Adv. Time/ Place	6.5	3.8	12.5	7.7	6.11***
13-Adv. Other than Time/ Place	4.6	4.4	14.8	33.3	52.26***

Category (iv) Modification

Items: 14-Unmodified Nouns
15-Adjectives
16-Inflected Genitive
17-Phrasal Genitive
18-Prepositional Phrases
19-Past Participles
20-Present Participles
21-Total Nonclause Modifiers
22-Complexity of Nominals
23-Nominals with Count of Four and More

Modification differed significantly among the modes in eight of the above measures, description almost always eliciting the highest incidence, the rank order of the other three modes varying, as shown in Table 3. Items 20 and 23 are omitted because of statistical nonsignificance and extremely low incidence.

Table 3

Modification in 4 Modes: Rate of Occurrence Per 100 T-units

Item	Narr.	Desc.	Expos.	Arg.	F Distrib.
14-Unmodified Nom.	197.9	173.8	215.0	242.5	17.70***
15-Adjectives	33.9	50.7	50.8	43.8	3.61(.025)
16-Inflected Gen.	20.8	31.6	17.1	18.1	3.18(.025)
17-Phrasal Gen.	5.5	11.2	10.0	7.1	5.50***
18-Prep. Phrases	2.9	6.1	5.7	3.6	4.56**
19-Past Participles	1.8	1.7	0.5	0.1	5.51***
21-Total Noncl. Mod.	66.7	102.0	85.0	74.1	6.97***
22-Complexity of Nominals	29.5	66.0	48.9	41.5	3.16(.025)

Category (v) Nominalization

Items: 25-Infinitival Nominals
26-Gerunds

Incidence of both items differs significantly among the modes, repeating the pattern of Category (ii) and of adverbial clauses in Category (iii), highest in argument, then exposition, then narrative, then description.

Table 4

Infinitival Nominals and Gerunds in 4 Modes:
Rate of Occurrence per 100 T-units

Item	Narr.	Desc.	Expos.	Arg.	F Distrib.
24-Infin. Noms.	2.4	1.5	3.3	10.8	13.88***
25-Gerunds	1.4	0.4	1.0	5.4	9.09***

Category (vi) Verbal Auxiliaries

Items: 26-Passive
27-Six Modals (will, would, shall, should, may, might)
28-Can and Could

The Passive, found a discriminating structure in several previous studies, was distributed over the modes without any significant difference (2.8 per 100 T-units in narrative, 2.0 in description, 3.6 in exposition, 3.2 in argument). The other two items, however, differed significantly among modes, argument yet again eliciting the highest incidence.

Table 5

Verbal Auxiliaries in 4 Modes: Rate of Occurrence Per 100 T-units

Item	Narr.	Desc.	Expos.	Arg.	F Distrib.
27-Six Modals	3.2	2.1	7.2	10.8	8.77***
28-Can and Could	2.2	3.5	6.6	20.1	20.55***

Category (vii)
Nonclausal Noncomplement Adverbials (excluding time and place)

Items: 29-Single Word
30-Phrasal

Distribution of both items differed significantly among the modes, with single word adverbials highest in argument, followed by exposition, and phrasal adverbials highest in exposition followed by narrative. Totalling the two gives the lead to exposition.

The single word adverbials consist almost entirely of sentence adverbials and adverbials of manner, whose incidence is approximately equal, and distributed in these equal proportions among the modes. There are also a very few adverbials of purpose, degree and cause.

The phrasal adverbials are mainly of manner (with a few of purpose, degree and cause) and infinitives of purpose.

Table 6
Nonclausal Noncomplement Adverbials in 4 Modes
Rate of Occurrence per 100 T-units

Items	Narr.	Desc.	Expos.	Arg.	F Distrib.
29-Single Word	3.2	3.3	7.1	7.7	5.85
30-Phrasal	9.6	5.5	11.1	7.1	3.67(.025)

For a summary of the influence of mode, see the end of this chapter.

Mode and the Variable of I. Q.

This part of the chapter reports on the influence of I. Q. compared with that of mode, and whether there is any discernible relationship between mode and I. Q.

In two syntactic categories out of the seven, (ii) T-units, Clause Length and Subordination, and (iv) Modification, most of the items were significantly influenced by I. Q., with the low-medium-high I. Q. rank reflected in incidence of complex structures. Items not significantly different neverthess revealed the same trend. Also Item 11-Adjective Clauses, patently related to modification, showed significant differences. The level of significance of the I. Q. differences in these two categories is sometimes higher than that of mode.

Though not statistically significant, there is some discernible I. Q. influence in Category (i) also, the high group almost always writing more, the low group almost always using more of "and" between T-units.

Item 30-Phrasal Adverbials also showed significance, but only at the .025 level, and with no discernible pattern, so may be disregarded.

There are thus two categories out of seven, 11 items out of 30, where I. Q. is an influential variable, compared with the overall influence, 23 items out of 30, where mode was found influential. Further, in the four categories where I. Q. is not influential, distribution of syntactic structures among the different I. Q. groups is completely random. This is totally different from distribution among the modes, where the strong repeating pattern is maintained even where it is not statistically significant. No single syntactic item shows the irregularity of distribution among modes that is shown among I. Q. groups in these four categories.

Details of the significant differences among I. Q. groups are given in Table 7. (Items 3 and 7 show length, the rest show incidence per 100 T-units). For comparison, levels of significance of difference among modes, if any, are also given.

Table 7

Differences Among I. Q. Groups in T-units, Clause Length and Modifiers

Item	I. Q. Group			Mean of Total Group	F Distrib.	Level of Sig. Diff. Among Modes
	Low	Medium	High			
3-T-u Length	8.7	9.3	10.0	9.3	6.08**	***
4-T-u <9 Words	61.9	55.4	47.9	54.8	9.91***	***
5-T-u 9-20 Words	35.0	41.5	47.5	41.7	8.89***	**
7-Clause Length	6.5	7.0	7.2	6.9	5.46**	N.S.D.
15-Adjectives	37.5	42.1	57.8	44.8	9.64***	.025
17-Phrasal Gen.	4.9	8.3	11.6	8.4	11.01***	***
18-Prep. Phrases	3.3	3.8	7.5	4.6	8.32***	***
21-Total Non-Cl. Modifiers	68.2	78.9	100.6	81.9	2.38***	***
22-Complexity of Nominals	26.1	42.7	72.3	46.5	12.12***	.025
23-Nominals 4+	0.2	0.3	1.2	0.5	6.20**	N.S.D.
11-Adjective Cl.	5.2	7.2	10.0	7.5	5.14*	N.S.D.

There is no discernible relationship between mode and I. Q. In categories where I. Q. exerts a significant influence, it exerts the same influence across all modes; in categories where I. Q. does not exert any influence, distribution is completely random. As it happens, in three items in these non-I. Q.-influenced categories there is statistically significant mode/I. Q. interaction: Item 13-Adverbial Clauses other than Time and Place (significant at .005), the high group produces far more in argument, less in the other modes; Item 27-Six Modals (significant at .005), the low group produces more than the other two groups added together in exposition; Item 29-Single Word Adverbials (significant at .05) there are various reversals of rank order over wide ranges. These three interactions are fully reported here as in the 90 two-way analyses of variance in this syntactic component of the study there are in total only four significant interactions between mode and any other variable. However, they appear to be no more than extreme examples of the apparently totally patternless distribution among the I. Q. groups in all structures in all four categories. For a summary of Mode and the Variable of I. Q. see the end of this chapter.

Mode and the Variable of Sex

This part of the chapter reports on the influence of sex compared with that of mode, and whether there is any discernible relationship between mode and sex.

Significant differences between boys and girls were found in the incidence of eight syntactic structures out of the 30, all showing greater syntactic maturity of the boys. One was Item 26-Use of the Passive, found characteristic of higher-performing language groups in other studies but not hitherto in this one; significant at the .05 level only, however. The other seven differences were in the two categories found significantly influenced by I. Q.: T-unit measures and modification; and where items in these categories are not significantly different, they nevertheless reveal the same trend, the boys consistently producing the more complex syntax. This is true of adjective clauses also. (see Table 8)

In structures where sex was not influential, distribution was comparatively equal among boys and girls throughout, in contrast to the disparate, patternless distributions found among I. Q. groups when I. Q. was not influential.

In some very few items, then, the significance of differences between the sexes, (boys always outperforming the girls) was found at a higher level than that among modes. For the rest, however, the influence of mode is far stronger than that of sex.

Table 8

Differences Between Boys and Girls in T-units and Modifiers
Rate of Occurence per 100 T-units

Item	Sex		F Distrib.	Sig. of Diff. Among Modes
	Boys	Girls		
4-T-u <9 Wds.	51.9	57.8	6.72*	***
5-T-u 9-20 Wds.	44.3	39.1	5.71 (.025)	**
15-Adjectives	52.2	37.4	18.26***	.025
16-Infl. Gen.	18.0	25.8	8.32**	.025
17-Phrasal Gen.	10.3	6.6	13.14***	***
20-Pres. Part.	1.2	0.5	5.24 (.025)	N.S.D.
21-Total Noncl. Modifiers	88.3	75.6	6.54 (.025)	***

There is no discernible relationship between mode and sex. In categories where sex is influential, (as in categories where I. Q. was found influential), the rank order of length or incidence of the structure is maintained throughout the four modes. In categories where sex is not influential, the comparatively equal distribution of each structure between boys and girls is maintained from mode to mode (unlike the patternless, irregular distributions among I. Q. groups). (Item 18-Prepositional Phrases shows a .05 level of interaction, but this appears not to indicate any trend). For a summary of Mode and the Variable of Sex see the end of this chapter.

Mode and the Variable of Reading Comprehension

This final part of the chapter relates the findings on mode to the grammatical structures in the writing of two groups of eight children each matched for I. Q. (all within the medium range) and sex, one group scoring high on the Gates-McGinitie reading comprehension test and one scoring low. As with the variables of I. Q. and of sex, we shall look at the influence of reading comprehension compared with that of mode, and whether there is any discernible relationship between mode and reading comprehension.

Although the two groups were matched for both I. Q. and sex, six significant differences were still found between the groups, all showing the greater syntactic maturity of the high group, as detailed in Table 9.

Three of the differences were in modification, where I. Q. and sex were also found significant variables. Level of significance of two is only at the .05 level, and Item 28 is sparse. However, almost every other modifier throughout all modes consistently shows greater incidence produced by the high group.

The highest level of significance was found in Item 15-Subordination Ratio, where neither I. Q. nor sex was found significant; and the two remaining items are related to this. ("I went in town and I saw..." transformed to "When I went in town I saw..." shows the connection of the three.)

Mode is obviously a far more influential variable than achievement in a reading comprehension test.

Table 9

Difference Between Reading Comprehension Achievement Groups
Rate of Occurrence per 100 T-units

Item	Reading Comprehension Scores Low	High	F Distrib.	Sig. Diff. Among Modes
2-"And" Between T-units	30.5	18.0	7.04(.025)	N.S.D.
8-Sub. Ratio in Percent	21.5	30.3	16.61***	***
12-Adv. Cl. of Time and Place	7.6	12.9	6.14(.025)	***
11-Adjective Clauses	5.4	10.5	10.45**	N.S.D.
20-Pres. Part. as Modifiers	0.3	1.1	4.45(.05)	N.S.D.
22-Complex. of Nominals	34.3	60.5	4.41(.05)	***

There is no discernible relationship between mode and reading comprehension achievement. For a summary of mode and the variable of reading comprehension achievement see below.

Summary of the Influence of Mode on Syntax, and its Relationship to I. Q., to Sex, and to Reading Comprehension Achievement

Mode

In all seven categories of the syntactic index, 23 items out of 30, length or incidence of syntactic structures was found to vary significantly

among the different modes of writing, usually at the .001 level of significance. Differences in other items, though not statistically significant, revealed the same pattern.

Argument almost always elicited long T-units, more subordinate clauses, nominalization, verbal auxiliaries and nonclausial adverbials. Exposition often elicited the second most complex syntax, narrative the next (often with a fairly wide gap between exposition and narrative), description the least complex. In items related to modification, however, description elicited the most.

Throughout the syntactic analysis, it is generally only in narrative that data confirm the findings of previous researchers (notably Hunt 1964, 1966), findings taken heretofore as delineating fourth-grade performance. T-unit length found in argument, for example, is closer to Hunt's figure for Grade 8 than for Grade 4. The subordination ratio in argument actually exceeds Hunt's figures for Grade 8.

Mode and I. Q.

I. Q. was found a significant variable in two categories out of the seven, that of length of T-units and clauses, and that of modification; 12 items out of 30. Thus mode was found a far more influential variable than I. Q.

No discernible relationship was found between mode and I. Q.

Mode and Sex

Significant differences were found in eight items mostly in the categories influenced by I. Q. also, all showing the boys to produce greater syntactic complexity. This is an unusual finding for fourth grade, where any differences found earlier have shown the girls producing greater complexity. The influence of sex, however, is very much less than that of mode.

No discernible relationship was found between mode and sex.

Mode and Reading Comprehension Achievement

The group which scored higher on a reading comprehension test than another group, though matched for I. Q. and sex, differed in six items. The high group produced the more complex syntax. This was particularly noticeable in subordination, where I. Q. and sex had not been found very influential. Differences from mode to mode, however, are obviously far greater than those between the two reading groups.

No discernible relationship was found between mode and reading comprehension achievement.

Findings are summarized in Table 10.

Table 10

Syntactic Index with Significance of Variables of Mode, Sex, I. Q. and Reading Comprehension Achievement

Grammatical Structures	Sig. Diff. Among Modes	Sig. Diff. IQ Gps.	Sig. Mode/IQ Inter-action	Sig. Diff. Boys/ Girls	Sig. Diff. Sex/ Mode Inter-action	Sig. Diff. Reading Compreh.
Category (i) General Characteristics						
1-Number of Words Written	***					
2-"And" Between T-units						.025
Category (ii) T-units, Clause Length & Subord.						
3-T-unit Length	***	**				
4-T-units Less Than 9 Words	***	***		*		
5-T-units 9 to 20 Words	**	***		.025		
6-T-units Longer than 20 W.	*					
7-Clause Length		**				
8-Subordination Ratio	***					***
Category (iii) Kinds of Subord. Clause						
9-Noun Cl. as Direct Object	***					
10-Noun Cl. Other than D. Cl.						
11-Adjective Clause		*				**
12-Adv. Cl. Time/Place	***					.025
13-Adv. Cl. Not Time/Place	***		**			
Category (iv) Modification						
14-Unmodified Nouns	***					
15-Modifiers: Adjectives	.025	***		***		
16-Mod: Inflected Genitive	.025			**		
17-Mod: Phrasal Genitive	***	***		***		
18-Mod: Prepositional Phr.	**	***			.05	
19-Mod: Past Participle	***					
20-Mod: Present Participle				.025		.05
21-Total Nonclause Modifiers	***	***		.025		
22-Complexity of Nominals	.025	***				.05
23-Nominals w. Count of 4+		**				
Category (v) Nominalization						
24-Infinitival Nominals	***					
25-Gerunds	***					
Category (vi) Verbal Auxiliaries						
26-Passive				.05		
27-Six Modals	***		**			
28-Can and Could	***					
Category (vii) Noncomp. Noncl. Adverbials						
29-Single Word	***		.05			
30-Phrasal	.025	.025				

CHAPTER V

FINDINGS: THE RELATIONSHIP BETWEEN SYNTAX AND CONTENT

This chapter presents the findings concerned with ascertaining the importance of syntax in expression of content. Specifically, if writing contains more of the syntactic structures considered characteristic of older children, is it likely to be graded higher? Is such writing likely to contain more language functions found in previous research to be characteristic of effective users of language?

Organization of the Analysis of Data

Data from two measures evaluating the content of the children's writing are analyzed: first, the grades given to each child's writing for each week by four experienced raters; second, a count by the investigator of occurrence of four language functions found in the Loban (1963) study to be characteristic of effective users of language. Data from each measure are compared in turn with findings from the previous chapter, which reveal the syntactic patterns of the writing.

Syntactic Structures and Grades

Four raters graded every week of writing, each rater giving to each child's work, each week, a maximum of eight points, as explained in Chapter Five. These points from the raters were then pooled, giving each child each week a maximum of 32 points. The pooled grades were submitted to three two-way analyses of variance, parallel to those of the grammatical structures: first, distribution according to the variables of mode and I. Q.; second, mode and sex; third, using a smaller sample, mode and reading comprehension achievement. As with grammatical structures, the data from these two-way analyses of variance were examined for each variable in turn: mode, I. Q., sex, reading comprehension achievement. Findings in each variable were then compared to the corresponding syntactic findings reported in Chapter Six.

For ease of reference, the mean grades, that is the number of points earned out of a possible 32, are expressed throughout as per cent.

Tables 11, 12 and 13, at the end of this section on grades, give the detailed distribution over mode and the other three variables.

The Variable of Mode

There were no significant differences in grades among the means of the total group in the four modes. The mean grades were:

Narrative	Description	Exposition	Argument	F Distribution
57.3%	62.6%	58.5%	57.3%	0.76

There is no parallel in content grades, therefore, to the syntactic complexity found in the argumentative mode in all seven syntactic categories of the study, or with the syntactic complexity found in the descriptive mode in items of modification.

Analyzed according to mode, then, there is no discernible relationship in the children's writing between syntactic structures and grades.

The Variable of I. Q.

There was significant difference in grades among the three I. Q. groups at the .001 level of significance, as follows:

Low I. Q. Group	Medium I. Q. Group	High I. Q. Group	F distrib.
N = 7	N = 24	N = 9	
51.8%	58.3%	66.2%	13.28***

These mean scores indicate that the children whose writing content was rated high are those who were found in Chapter Six to produce longer clauses (reflected in longer T-units also) and more modification. However, examination of the detailed distribution of grades over the modes shows the low group to have earned the highest grade in argument, the high group the lowest, producing an interaction of mode and I. Q. significant at the .01 level. In the syntactic analysis there was no parallel to this reversal of the high-low ranking in the argumentative mode.

The Variable of Sex

There was no significant difference in grades between boys and girls. Grades were as follows:

Boys	Girls	F distrib.
N = 20	N = 20	
59.7%	58.3%	0.42

Boys were found in Chapter Six to produce significantly more complex syntax in eight items. That complexity is not reflected in the content grades of the raters.

The Variable of Reading Comprehension

The group scoring high on the reading comprehension test received significantly higher grades than the low reading group.

High Group	Low Group	F distrib.
N = 8	N = 8	
60.8%	54.5%	6.39 (sig. at .025)

It appears from the mean scores that the group found in Chapter Six to produce more complex syntax is also the group receiving higher grades for content. However, the detailed distribution over the modes shows the groups to reverse their high-low ranking in grades in the argumentative mode, almost at the level of significant interaction. In the syntactic data, no reversal of any kind was found in argument. This parallels the findings above in the variable of I. Q., where different children (the high and low I. Q. groups of the whole population, not these subgroups from the medium I. Q. group) also produced a grade reversal in argument with an interaction significant at the .025 level but also with no corresponding reversal in syntax. Thus while the interaction here between mode and reading comprehension achievement cannot be regarded as statistically significant, nevertheless it warrants qualification of the assumption that higher grades and syntactic complexity are found together in children's writing.

Details of Grades are given in tables 11, 12 and 13.

Table 11

Grades in Percent Over 4 Modes, Related to I. Q.

I. Q. Group	Mode of Discourse				Mean of Group
	Narrative	Description	Exposition	Argument	
Low	45.9	51.9	48.8	60.7	51.8
Med.	56.6	63.1	56.5	57.0	58.3
High	68.1	69.4	71.6	55.6	66.2
Mean of Mode	57.3	62.6	58.5	57.3	58.9

Factors	F
Mode	0.76
IQ	13.28***
Mode/IQ	2.94*

Table 12

Grades Over 4 Modes, Related to Sex (in Percent)

Sex	Mode of Discourse				Mean of Group
	Narrative	Description	Exposition	Argument	
Boys	59.7	64.7	58.1	56.4	59.7
Girls	55.0	60.6	59.1	58.4	58.3
Mean of Mode	57.3	62.6	58.5	57.3	58.9

Factors	F
Mode	1.31
Sex	0.42
Mode/Sex	0.60

Table 13

Grades Over 4 Modes, Related to Reading Comprehension (in Percent)

Reading Compre. Score	Mode of Discourse				Mean of Group
	Narrative	Description	Exposition	Argument	
Low	47.8	63.3	50.3	56.6	54.5
High	59.7	65.3	64.8	53.5	60.8
Mean of Mode	53.7	64.3	57.5	55.1	57.7

Factors	F
Mode	3.48
R.C. Score	6.39 (Sig. at .025)
Mode/R.C. Score	2.75

For a summary of the relationship between complexity of syntax and superiority of content, see the end of this chapter.

Syntactic Structure and Language Functions

Loban (1963) found four functions of language to characterize the speech of effective users of language: more tentative statements, generalizations, and figurative language, and fewer irrelevancies. In this study, each child's writing in each mode was examined for occurrences of these four language functions. As with grammatical structures, occurrences were computed per T-unit for each child in each mode. Incidence was then tabulated according to mode and to the variables first of I. Q., then sex, then reading comprehension, as with the grammatical structures and grades. Two-way analyses of variance were not, however, carried out for the different variables in the different language functions, as occurrences were found to be so few. It should be held in mind throughout this section, therefore, that findings are not statistically tested.

Details of distribution are given in Tables 14 to 17 at the end of this section.

Tentative Statements

Only 25 tentative statements were produced in the approximately 8,000 T-units of this study. Most of these occurred in the argumentative mode, where all three I. Q. groups contributed, both boys and girls, both high and low reading comprehension achievers. This same mode was found in Chapter Six to elicit the most complex syntax.

The high I. Q. group produced more than the medium I. Q. group which produced more than the low I. Q. group, thus paralleling the production of long clauses, long T-units and complex modification as found in Chapter Six.

Boys produced more than girls, and the high reading group produced more than the low, both findings which also parallel syntactic findings.

In summary: tentative statements tend to occur where the findings in Chapter Six show syntactic complexity to be located also.

Generalizations

Statements of generalization were too rare to warrant conclusions, the overall mean being only one example in a thousand T-units. There were none in exposition, none produced by the low I. Q. group, and none by the low reading comprehension group.

Figurative Language

Incidence was highest in the descriptive mode, parallel to the syntactic finding of significantly more modification in that mode than any other.

The high I. Q. group produced more than the other two groups, but the low I. Q. group produced almost as much, more than the medium I. Q. group. This differs from syntactic modification which showed significant difference among the high-medium-low groups in that order.

Boys produced more figurative language than girls, the high reading group more than the low, just as both produced more syntactic modification.

In summary: there was some slight indication that incidence of figurative language tended to be highest where incidence of syntactic modifiers was found highest also.

Irrelevancies

Incidence was highest in the argumentative mode, followed by exposition. This is in direct contrast to the findings on syntactic maturity.

The low I. Q. group produced more irrelevancies than the other two groups, but the high I. Q. group produced more than the medium. This differs from the high-medium-low ranking found in several syntactic items.

Boys produced more irrelevancies than the girls, disagreeing with syntactic findings. The low reading comprehension group, however, produced more than the high, agreeing with syntactic findings.

In summary: among the modes, contrary to expectations, most irrelevancies occurred where syntax was found most complex. Among the other variables, no relationship was discernible.

The investigation of language functions proved frustrating, largely because of faulty procedure. The measure was based on discrete occurrances, as implied in the Loban (1963) study. In narrative and description, the modes of that study, it served. But in exposition and argument it proved not so true indication of the writing. In exposition the children

Table 14

Tentative Statements in 4 Modes, Related to I. Q. and Sex:
Rate of Occurrence Per 100 T-units

Students		Mode of Discourse				Mean of Group
		Narrative	Description	Exposition	Argument	
High	Boys	.81	.64	--	7.40	2.21
	Girls	--	--	--	--	--
Med.	Boys	--	--	.32	.35	.17
	Girls	--	--	.21	.42	.16
Low.	Boys	--	--	--	.90	.23
	Girls	--	--	--	--	--
Mean of Mode		.14	.11	.15	1.60	.50

Table 15

Generalizations in 4 Modes, Related to I. Q. and Sex:
Rate of Occurrence Per 100 T-units

Students		Mode of Discourse				Mean of Group
I. Q.	Sex	Narrative	Description	Exposition	Argument	
High	Boys	.27	--	--	--	.07
	Girls	--	--	--	--	--
Med.	Boys	.26	--	--	--	.07
	Girls	--	.54	--	.42	.24
Low.	Boys	--	--	--	--	--
	Girls	--	--	--	--	--
Mean of Mode		.11	.19	--	.14	.11

Table 16

Figurative Language in 4 Modes, Related to I. Q. and Sex:
Rate of Occurrence Per 100-T-units

Students		Mode of Discourse				Mean of Group
I. Q.	Sex	Narrative	Description	Exposition	Argument	
High	Boys	.81	.64	.50	--	.49
	Girls	--	--	1.50	--	.38
Med.	Boys	--	.44	.32	.35	.28
	Girls	--	.71	.21	.21	.28
Low	Boys	--	--	--	1.80	.45
	Girls	--	--	--	1.26	.32
Mean of Mode		.14	.47	.33	.43	.34

Table 17

Irrelevancies in 4 Modes, Related to I. Q. and Sex:
Rate of Occurrence Per 100 T-units

Students		Mode of Discourse				Mean of Group
I. Q.	Sex	Narrative	Description	Exposition	Argument	
High	Boys	--	--	.50	1.14	.41
	Girls	--	--	--	--	--
Med.	Boys	--	--	.65	.35	.25
	Girls	--	.18	.21	.85	.31
Low	Boys	--	--	2.99	.90	.97
	Girls	--	--	.90	.68	.40
Mean of Mode		--	.06	.63	.73	.36

explained rules and techniques appertaining whenever that game is played, or construct made; in argument they gave reasons for their like or dislike of uniforms, long vacations, and so on, in general. There was thus a pronounced tendency to generalization in the two modes in which the most complex syntax was found.

Summary of the Relationship between Syntax and Content

The significant differences in syntactic maturity found among modes were not paralleled in grades evaluating content.

The boys' syntactic superiority to the girls was not paralleled in superior grades for content.

There was some indication in distribution of the grades according to the variable of I. Q. and the variable of reading comprehension achievement that the children earning higher grades were generally those producing more mature syntax. However, in the argumentative mode, the opposite was true.

In short, no statistical relationship was found between syntactic complexity and superiority in content grades.

Insofar as anything could be discerned from the very few occurrences of the four language functions, there seemed indications in both tentative statements and figurative language of incidence parallel to syntactic complexity. Irrelevance also, however, generally occurred where syntax was complex. Generalizations were too few to be taken even as very tentative indications.

This is as much as can be said about the language functions as amenable to a count of separate occurrences. An overall tendency toward generalization was noted, however, in exposition and argument, the two modes where the most complex syntax was found.

In short: virtually no discernible relationship was found between syntax and effective expression of content.

CHAPTER VI

FINDINGS: CHILDREN'S PREFERENCES AND SELF-ASSESSMENTS

This chapter presents the findings related to the possible influence of attitude on syntax, specifically: is the writing that the children most enjoy likely to contain more complex syntax? Does the writing they assess as their best contain more complex syntax?

None of the data here were submitted to statistical analysis. The findings are more in the nature of observation on the classroom context of writing, hypothesis-generating rather than hypothesis-testing. For that reason, the chapter also includes any other indication from the free choice week and the interviews that seem to throw light on children's writing, even if it is not strictly related to syntax.

Organization of the Data

Children's preferences were ascertained in two ways. First, after the four weeks of writing in the four specified modes, the children had a fifth week in which to write anything at all that they thought their correspondents in England would enjoy. What they chose to write about, the syntactic structures they used in the four modes of the previous four weeks, form the first section of the chapter. Secondly, in individual interviews after all the writing was completed, the children responded to questions asking which week's writing they had most enjoyed. Their preferred modes, paired with their syntactic structures in them, are reported in the second section of the chapter.

During the interviews the children also answered questions asking what they judged to be their best week's work, and why they judged it so. These responses were similarly compared with their syntactic performances, and are also reported in the second section.

Free Choice Writing

During the fifth week, the children's writing fell into five modes. Four of these were those of the previous weeks, each clearly distinguished as previously, but with topics within the modes much more personal than before. The syntactic structures of each mode were clearly those of their earlier counterparts, for example T-unit length and subordination:

	Narr.	Descr.	Expos.	Argument
T-unit length, wk. 5	8.6	8.2	9.6	10.6
(means from Ch. IV	8.7	8.4	9.9	10.4)
Sub. Ratio, week 5	19.5%	13.8%	26.8%	36.4%
(means from Ch. IV	19.8%	14.5%	27.6%	34.7%

The fifth mode, however, was unlike anything the children had written previously, very personal, often gossipy, and hardly stayed on one topic for more than two or three sentences, with constant exclamations and asides. It resembled more than anything informal conversation, and will therefore be referred to as the conversational mode. It was also syntactically distinct, with a mean T-unit length of 7.9, lower than that in any of the four other modes, and a subordination ratio of 15.5%, lower than any except in description.

Table 18

Mean Number of Words in 5 Modes Written Fifth Week, Related to I. Q., Sex and Reading Comprehension

Student Groups		Narrative	Description	Exposition	Argument	Conversation	Mean Total of Week
I. Q.	Low	137	40	0	58	164	399
	Med.	81	72	3	21	145	322
	High	263	14	32	0	115	424
Sex	Boys	161	33	18	21	91	324
	Girls	102	75	0	31	193	401
R.C. Score	Low	77	93	0	30	98	298
	High	92	65	10	19	129	315
Mean for Mode		132	54	9	26	142	363

The writing of the fifth week cannot be taken as straightforward indication of preferences since it followed on four weeks of fairly structured assignments and was probably in part a reaction to that. Moreover the sample is too small, both in number of students and amount of writing, to warrant generalizations. It is worth noting, however, that the children wrote by far the least in the two modes that have been found to elicit the most complex syntax, exposition and argument. Further, this tendency is even stronger in the low I. Q. group than the high, with their large proportion of the conversational mode. Preferences of the low and high reading comprehension groups parallel those of the I. Q. groups, except for the high reading group's fondness for the conversational mode. Girls also enjoyed this mode, producing more than twice as much of it as the boys.

These preferences resulted over the week in mean T-unit lengths and subordination ratios for all groups which were generally lower than those of any other week, or lower than any except description. Grades, however, were higher for most groups than in any other mode, or any other mode except description. Thus they accord with the findings in the previous chapter, in that although there is some consonance between high grades and complex syntax among groups within the mode, among modes they do not coincide.

Table 19

T-unit Length, Subordination Ratio and Grade, Fifth Week, Related to I. Q., Sex and Reading Achievement

Student Groups		T-unit Length	Subordination Ratio in Percent	Grade
	Low	8.4	19.4	63.4
I. Q.	Med.	8.1	17.3	57.4
	High	8.9	18.6	71.5
Sex	Boys	8.4	16.2	62.0
	Girls	8.3	19.7	61.3
R'd'g Comp. Scores	Low	7.7	17.3	57.5
	High	8.9	19.3	65.0
All-group	Mean	8.3	18.0	61.7

For a summary of free choice writing, see the end of the chapter.

Expressed Preferences and Self-Assessments

The mass of data collected from the interviews shows a few very general trends and for the rest a welter of individual opinions among which no relationships of any kind can be discovered. These are summarized in Table 20. The numbers given represent the number of children out of the 40 who, for each mode, said they enjoyed it best, thought they did their best work in it, etc. The first four columns give the children's opinions expressed during the interviews, the last five their grades and syntactic performances during the five weeks of writing.

Table 20

Children's Opinions About and Performances in 4 Modes and Free Choice

Week: Mode	Children's Opinions				Raters' Grade	Fluency	Syntax		
	Enjoyed Most	Thought Wrote Best in	Thought Chdn. in England Would Like Best	Want Back Most From England	Received Highest Grade	Wrote Most	Longest Mean T-unit	Longest Mean Clause	Highest Mean Subord. Ratio
1: Narr.	11	14	7	5	4	19	2	7	0
2: Desc.	3	5	3	11	14	7	1	11	0
3: Expos.	3	3	13	3	9	4	10	9	9
4: Arg.	5	6	3	2	4	2	26	5	31
5: Free Ch.	18	12	14	19	9	8	1	8	0

The many anomalies are self evident. Nevertheless, there are two clear indications. First, the free choice week was by far the most popular, and the only other week near it in popularity was the one in which they wrote narrative. Although the mode that children said they preferred was by no means necessarily the one they actually wrote during the free choice week, nevertheless the overall figures for free choice writing bear out these preferences. Most children thought they had done their best work in these two modes also. Second, it is also clear that children's preferences and self-evaluations have very little to do with the evaluations of experienced graders, and even less with maturity of syntax.

Reasons Given for Preferences and Assessments

By far the most common reason for preferring a particular mode was that the writer liked the person or thing that he was writing about. This was the main reason given for enjoyment of the free choice week also. Some few children said they enjoyed that week best because they hated being told what to do, but mostly they enjoyed it because they liked whatever it was that they wrote about.

Reasons for judging some week's work as their best were more varied. Most children (13) said they thought it was their best because it was the most interesting; eight because it was the longest; four because they enjoyed it best; five because it was something they really knew about; three because they found it the easiest (one narrative, one argument, one free choice); two because it was the clearest; one because he really stuck to it; one because it was the most original; one because it was funny; and two could give no reason. Of the nine children whose self-evaluations agree with the raters', six were those who gave 'interesting' as their reason, two because they enjoyed it, one because he wrote a lot. Of the 10 whose self-evaluated best was the raters' worst, all three who said it was the easiest are included, two who judged by length, two who said it was the most interesting, one who wrote what he really knew about, one who enjoyed writing it the most and one who didn't have a reason.

Other Writing

Few children could think of any writing they had enjoyed more than that of the preceding five weeks. A few remembered a story written some time before, or an interesting science project they wrote up, some enjoyed describing pictures, others couldn't stand describing pictures. Many said that they would like to learn to write well, both for pleasure and practical use, were exposition and argument. A few said they would really like to learn to write stories: "stories about what's happened to me", some said, and others, "nothing about my own life".

Agreement

One thing they all agreed on. There was very little indeed of what they had written that they did not want to send to England. Three of the more libelous items of gossip produced during the fifth week were thought better of, and less than half a dozen other snippets here and there because they were "dumb". Most children were surprised that one could ever ask if

there were anything that they did not want to send. They were enormously proud of their output, and requested copies of it all to read among themselves and share with friends and family.

Summary of Children's Preferences and Self-Assessments

Given free choice after four weeks of comparatively directed writing, the children wrote on more personal subjects than previously. They expressed these through the four main modes of the study, employing the characteristic syntactic structures of each mode, and also through a fifth, conversational mode, syntactically uncomplex. This fifth mode, and narrative, were the most popular choices. They wrote very little in argument and exposition, modes eliciting complex syntax. Mean T-unit length and subordination ratio for the free choice week were therefore low.

In the interviews, children mostly said that they enjoyed writing about people, places or things that they liked. They then thought this was their most interesting work and therefore their best. This rarely agreed with the raters' evaluation, and was almost always in modes eliciting less complex syntax.

CHAPTER VII

ANOTHER LOOK AT THE AREAS OF CONCERN

At the end of the first chapter, three areas of concern were defined. Within each area I pursued one main question. In the last three chapters I reported what I found in pursuing those three questions. Now let us look again at the broader concerns, and assess to what extent the findings have clarified our view.

Are outline of children's syntactic development valid if they do not take the circumstances of language production into account?

The study made it clear the children's syntax differs very significantly according to whether they are writing narrative, description, exposition or argument. So we cannot rely on any map of their development other than one that takes this into account. And from existing studies we cannot make that map. As yet, we do not know whether children typically progress at a similar rate in all aspects of their writing; or whether, say, eighth graders write far more complex structures than fourth graders in argument, but roughly the same structures, in the same amount, in narrative. Perhaps it's the other way around. And how do boys progress, in which areas, compared with girls? What about children of differing I. Q.? And when we break down an I. Q. score into its component parts, are there some components of intelligence that tie in with some particular characteristics of syntax in some kinds of writing?

Moreover, although this study broadened the range of writing beyond that of previous research, that range is still miniscule within the context of the whole potential range of writing. There was only one variable in the language analyzed here, that of mode. What happens when you write to different kinds of people? For different purposes? In different circumstance? And what of oral language, in all its myriad functions? Once we can start filling in the facts here, we may well gain a better understanding of the part that language plays in mental development. But for now we have to realize that we are only at the very beginning.

We also have to realize that revealing as transformational analysis is, as used in this and previous studies, it is one method only of exploring syntax, and leaves many aspects out of account. There were several occasions during the analysis when I felt that the index of the study was failing to reveal certain structural characteristics which called not for an extended version of the same approach but for something different. Sometimes sentences would hang together in a unit more effective than the sum of parts, for example, or the strategic position of a phrase gave it double force, or a point was brought home with echoed organization. Because we have as yet no system of analysis that will help us codify these characteristics in coherent fashion, the tendency is to dismiss them; but I suspect that the teeming richness of surface structure, such as the rhythm, or the sound, may one day be found to hold to its laws, integral to structure of the utterance, as have so many of the other seeming anomalies of language. And certainly the limitations of the unit of analysis are obvious.

The T-unit is a great deal more satisfactory than the sentence; but what we need now is a Super T, something that will help us analyze the way in which a whole small body of thought hangs together.

It may not be long before the kind of analysis used in this and previous syntactic studies is outmoded by new linguistic theories, and when they appear they will doubtless be greeted like all the others before them as the key to unlock all doors. I hope the present study has helped emphasize than an elegant linguistic theory is one thing, (one very desirable thing); but the study of language in use is quite another.

How Important is Syntax in Effectiveness of Expression?

The study found that a greater syntactic complexity did not coincide with higher grades for content as awarded by four experienced raters. Therefore, it might be concluded that syntactic complexity is immaterial to effectiveness of expression. But there is another way of looking at these findings. It might be reasoned that since the children's argumentative writing showed such greater complexity on almost every syntactic item and still gained no higher grade, in fact these structures are essential to argument if the writing in this mode is to be rated as high as writing in another mode. So from one point of view we might conclude that syntactic maturity is immaterial to effectiveness of expression; and from another that it is essential to it. But these possible conclusions are not in fact contradictory when we realize that what we are dealing with here is a set, writing, and a subset, mode; the first conclusion applies to the set, writing in general, the second to the subject, particular kinds of writing. An analogy might clarify the point. Let us suppose that four different breeds of dog are being judged, say pekinese, terrier, labrador, Irish wolfhound. These are the four subsets in the set dog. The objective height of the dog (read, for example, T-unit length, or subordination ratio) is largely immaterial to its excellence as assessed by the judges, otherwise best in show would automatically be a wolfhound, the tallest wolfhound. With each subset, however, height is not totally immaterial. A wolfhound no taller than a pekinese is hardly likely to win the ribbon for best of breed. There is some appropriate range for each. Comparative height within that range may not be important, just as within the argumentative mode the low I. Q. group gained a higher grade than the high I. Q. group though their syntax was not as mature.

This is only a hypothesis. To test it, detailed criteria, as objective as possible, would have to be established for content assessment of the writing. We might agree that some criteria would be common to all modes, such as precision and clarity; others applicable to some mode in particular, such as comprehensiveness of instructions in exposition, or number, cogency and development of reasons in argument. Or we might work to define and evolve a count for language functions along the lines of Loban (1963). But much better than that would be for us to try to sort out, first of all, totally free from value judgments, what is actually going on in children's writing. We might analyze, for example, the characteristics in children's writing of Ogden and Richards' (1925) five functions of language: symbolization of reference; expression of attitude to listener; expression of

attitude to referent; promotion of effects intended; support of reference. Or we might build on the considerable body of existing work (in institutional linguistics) on Register, and try to distinguish significant developments in Field, Mode and Style. Or we might take as broad framework the development of presentational and of discursive language, with their underlying functions, as in Britton (1970). Then detailed syntactic analysis of writing in each mode could be compared with the detailed content assessment of writing in each mode. It may well be that production of certain syntactic items correlates highly with performance according to certain assessment criteria, while other items and criteria manifest no correlation whatsoever. By comparing detailed characteristics in this way, it should be possible to discern if there are ranges of incidence of syntactic items within each mode which correlate with different levels of content proficiency in that mode.

Whatever the details of that possibility, this study at least affords glimpses of the mind's shifting into a different syntactic gear according to the road it is travelling. When I was first planning this study, I had to prepare myself for finding no differences whatsoever in the syntax from mode to mode. There are those who even doubt the validity of presuming such distincitons as "modes" in writing anyway. Certainly it was doubtful that the children would all produce writing recognizably within some such particular category from week to week. But as we have seen, they did. I could have thrown the whole stack of papers into the air and with no trouble have sorted them by content into the different weeks. From the syntactic findings, it looks as if I could almost have done the sorting by syntax, too.

I don't pretend to know what this implies about the workings of the human mind. Possibly it ties in with the findings of the Russian linguist Luria, for example, who is discovering in his studies of people with brain damage the specific areas of the brain apparently responsible for specific language operations; and other researchers who are progressively refining our knowledge of the exact biological element responsible for, say, our perception of the horizontal or the vertical. Perhaps we shall eventually isolate the exact biological complex of man's innate capacity for language; and within it the different groups of cells responsible for language in its different forms.

For now, the obvious rejoinder to "How important is syntax in effectiveness of expression"? is apparently: "We don't know." The very positiveness of the syntactic findings of this study, the high correlation between syntax and mode, emphasized how much more research is needed before we can answer that. Certainly the study confirms original doubts that we know enough about children's syntactic development and its relationship to expression to be prescribing drill for its supposed acceleration. But I believe the positiveness of the findings has strong positive implications too, affording definite guidelines for the classroom. Before going into those, however, let us look briefly at such answers as the study provided to the third of our original questions.

What is the Influence of Children's Attitude on their Syntax?

Findings revealed virtually no patterned relationship whatever between children's attitude and their syntax. In the free choice week of the study, which most children found the most enjoyable, the writing tended to contain less mature syntax. But not one gave any indication of finding the writing dull or difficult when they were writing argument, where the syntax was most complex. And in fact the most puzzling findings of the study cropped up in investigation of the study of the preference syntax/grade relationship. It was in argument that the low I. Q. group not only wrote more than the high I. Q. group (the only mode in which they did) but gained higher marks, too. Further, of the two small groups of children (all from the medium I. Q. range) differing in reading comprehension scores, the lower group also gained the higher mark in argument. In the free choice week, none of the high I. Q. group chose to write anything in the argumentative mode, and the 10 children who did had a mean I. Q. of only 93. In exposition, though, the mode eliciting the second highest incidence of complex structures, the picture is reversed. The high I. Q. group earned its highest mark in exposition, the low I. Q. group almost its lowest. In the free choice week, none of the low group chose exposition; the mean I. Q. of those who did was 112.

I still believe that greater involvement in what one is saying may induce more complex syntax, as one struggles to express one's precise thought or feeling; but this study has not uncovered any correlation. Maybe, for example, the boys produced more complex syntax in this study than they have been found to previously because they were more highly motivated than in other studies. (Wishing to please, and to do well, will often have girls writing satisfactorily while boys grudgingly respond to instruction with as little effort as possible). Maybe the high incidence of complexity for all children, throughout, was due not solely to the modes but also to the high level of involvement in the writing within each mode. But this is still in the area of hunch.

One thing about attitude, however, the study made clear: the children enjoyed writing very much, both process and product, and wished they did more of it in school.

Summary of Suggestions for Further Research

Towards Establishing an Outline of Syntactic Development

A. Language Variables

(i) Analysis of written narration, description, exposition and argument at different age levels

(ii) Analysis of spoken narration, description, exposition and argument at different age levels

(iii) Control of the variable of mode in research investigating other variables

B. Population Variables

(i) Exploration of correlation of different components of I. Q. with syntax

Detailed case studies, preferably longitudinal, exploring correlation of I. Q. and syntax

(ii) Sex to be explored as a variable likely to interact with other variables, possibly interacting strongly with socioeconomic background, and with interest in the writing project.

(iii) Case studies comparing the language of children matched for other variables but varying in reading comprehension

C. General Approach

(i) Agreement on terminology, to facilitate descriptive studies free from implied value judgments

(ii) Recognition that transformational analysis is only one way of examining children's syntax, leaving many aspect out of account

Investigating the Role of Syntax in Expression

A. Grades

Establishment of detailed criteria for content assessment of each mode, in order to compare detailed syntactic analysis of writing item by item in each mode, thus discerning possible correlation between ranges of syntax in a mode with levels of proficiency in that mode

B. Language Functions

Definition and detailed categorization of language functions

C. Content Analysis

Establishment of a replicable method of objective content analysis

Investigating Relationship between Attitude and Syntax

Detailed case histories

Classroom Implications

I think the findings offer two main guidelines, one suggesting what not to do, the other more positive. Let us look at them in that order.

The children in this study produced dramatically more complex syntax than fourth graders in any previously reported research, including those in studies claiming significant gains after a program of syntactic instruction. And they produced it without instruction of any kind. They merely

wrote in another mode. So to spend time on transformational drill would seem unwarranted.

Further, the individuality of a child's development needs no more proving by now. And this study adds to the concept of the child's individuality in language growth strong evidence of the individuality of different kinds of writing. So we see children producing in one more a high proportion of structures that they hardly utilize in another. There seems some probability that in the hand-in-hand development of his thought and language the child has to pass through various stages in the various kinds of writing, and that there is no easy transference of learning from one kind to another. The progression of syntactic mastery is complex indeed. Therefore it seems to me not only futile to try to induce more complex syntax by class drill, but quite probably harmful. If we push the use of a form where the child himself would not use it, we may well be cutting short a very necessary stage of his development. This does not mean that we should never help a child find a master, or more forceful, way of expressing what he wants to say. The implication, is, rather, that we must be guided by what the particular child, in that particular writing, seems to be feeling his way toward.

So much for the implications of what it seems we can safely omit from the school day. Let us now look at what it seems we should try to include.

The findings point above all to the need for a wide range of writing in the classroom. Each mode has been found to elicit its own, distinctive, syntactic pattern. Therefore it appears very doubtful that practice in one kind of writing is necessarily building proficiency in another kind. We may perhaps devote classroom energies to learning to tell a good story. In the course of this learning, I would think it quite probable that the children will develop increasing mastery of the syntax that narrative seems to call for. Or we may concentrate on painting graphic word pictures, and probably develop increasing mastery of the syntax most appropriate for description. But this increased syntactic mastery in narrative and description is no guarantee that if the child then plunges into argument he will muster the optimum syntax for cogent reasoning. If children are to be proficient in a variety of modes, the findings imply that we would be wise to help them develop mastery in each mode specifically.

Amplifying this guideline, the findings also imply that we would do well to vary the writing within each mode. The children thoroughly enjoyed the totally personal writing of the fifth week, for example, but we saw that this writing did not elicit the complexity of syntax produced in the previous weeks. So while we would happily encourage totally personal writing in the classroom, building on the positive attitude it engenders, minding it for thoughts and feelings to refine, we would not give it the lion's share of writing time. We would apparently do well to encourage plenty of the kind of writing produced in the first four weeks of the present study, that is, writing rooted in the child's experience, but structured by certain demands. The children knew each week just what they wanted to write about; they had a definite task; and awareness of their audience (a kind of alter ego) prompted them to express themselves as clearly and as fully as they could. Then further along the person-impersonal continuum, we have the children bringing themselves to investigation

of new places and new ideas. In their own words (because they have thought it through for themselves) they explain exactly how they made their rockets, and report precise flight times and distances. Or they give the reasons, as they understand them, for putting meal worms in their terraria. Or perhaps they narrate, for parents, their experiences on a field trip, including descriptions of what they saw and did.

Much of this is common enough practice already in the elementary school at one grade level or another. What is not so common is systematic encouragement of writing in all the modes, covering variations within each mode, at all grade levels. That is the range that I think the findings imply we would be wise to aim for from the very earliest writing through to the most mature. Supporting work will often be oral, necessarily so in the pre-writing days. But the findings of this study, specifically the less complex syntax of the conversational writing of the fifth week, raise doubts about how completely we are challenging the children's capabilities when we emphasize the oral rather than the written. I am therefore suggesting that at the early end we widen our concept of beginning writing. This is very often the caption a child dictates to a picture he has drawn, which is then most commonly expanded to simple description, or narrative. I suggest we also expand to explanations of how things work, or why the artist likes or doesn't like the person, place or object that he has drawn. Similarly with experience charts. And the class write-up of an investigation, or a trip, can run the gamut, with narrative, description, explanations and reasons all finding their place, along with drawings, lists and poetry. In that way, as the developing child is called upon more and more to organize and support his reasons, for example, he will already be at home in that domain. By the same token, I am suggesting that at the later end we need to redress the balance the other way. Often exposition and argument are emphasized, and in a very impersonal form, to the extent that narrative and description begin to fall away. (Anyone who has taught freshman composition is familiar with the end-product of that route: the Physics A student who is at a loss to get down on paper a personal experience he would like to share, the kind of person who then writes technical volumes awash with ambiguities.) It is our charge to help children make sense of themselves and of their world, and to express what they discover. The findings in this study imply that if they are to develop the syntax that will probably best help them do so, we would do well to cover as many areas as we can, with challenging writing projects, at every stage.

In the following, final chapter I give an account of the writing project that the fourth graders in this study tackled when the research writing was over. It was not specifically designed to follow the guidelines suggested here. It was in fact a fairly usual project, and its main aims were other than syntactic exercise. Nevertheless I was prodded by the findings to have the children cover a wider range of writing than we would have done ordinarily. I include the account partly to show how simple we found it to include in current activities this wider range. But mainly I include it because I was delighted by what the children produced while working primarily on various skills, and wanted to share it.

CHAPTER VIII

MAIN STREET MYSTERY

It was obvious from the first week of the study, the narration of favorite TV shows, that as soon as we were out of the confines of the research we would need some custom-tailored writing project. The children really were not able to handle sequence. They had to backtrack for crucial events, let alone details, often forgot them altogether, ending up with muddle. Pronouns ran amok; their antecedents were lost four sentences back or were nonexistent. What the children needed was practice in handling a series of events whose exact sequence they could see as important to the writing, each crucial detail to be fitted in with precision. I wasn't prepared to spend more time recounting television stories, or with other stories that were not their own. The next narrative had to have more of themselves invested in it. Maybe the answer was simply that they should all be encouraged to write their own stories; but I felt they needed to sequence something more extended than most of these children could happily produce on their own. They would need to help each other check whether their accounts were precise, comprehensive and clear. Some kind of joint effort was called for, perhaps one long, detailed, developed story. But we would have to work out how to reap the benefits of collaboration without losing the very personal commitment that is the keystone of learning to write.

The next week, writing descriptions of things and places in their lives, the children found less hazards in the basic structure. Lack of order in presenting the facts might detract from the vividness of a descriptive picture, but it doesn't wreak the havoc that it does in a story. One impression of the week before, however, was strongly confirmed: the work was all so snippetty. If it rarely took more than 200 words to dispose of the Flintstones, it very rarely indeed took more than 100 to dispose of one's house or one's street. So there was another element to include in our forthcoming long, developed, collaborative project, that it should call for the writers to take good stock of their surroundings.

Considering the lack of detail, lack of development, and lack of organization that the writing had shown thus far, the children's explanations and instructions during exposition week, and reasons for their fourth grade likes and dislikes during argument week, could have been a lot worse. In the ordinary way, perhaps I would have decided that we could leave those modes aside for the time being, concentrating on the sequencing and observing, since patently these are both great contributors anyway to efficient exposition and argument. But I had been running spot checks on the syntax of collected papers and could already descry the extraordinary T-units and subordination ratio of the last two modes. It seemed obvious that any lengthy project we embarked on could do well to afford opportunity for that kind of syntactic exercise.

Then the personal writing of the free choice week they enjoyed so much that clearly whatever we did it would have to be close to home. Totally free rein, however, was inadvisable, since that way they ran their minds in such unchallenging syntactic paths.

So: we wanted a project that would have the children helping each other follow through on ideas and observations; would have them look around to notice constituent details, organize and explore them; would have them explaining and reasoning; and would all be intimately connected with themselves. In addition, each person had to be truly responsible for some part of it, but the whole had to add up to something bigger, more substantial, than these children thought they could achieve. (That was all we needed!)

And even so, there is obviously a very important element of language arts omitted here; exploration of feelings, values, delights. Very important, but in this project, with these children, at this time, not what we were after. The children were short on many skills, which we had to work on, but instead of doing it by spending more time on textbooks and worksheets, we would do it with our own writing, and writing furthermore based as possible on the creed and coda expressed in Chapter One.

Perhaps the biggest constraint, as usual, was time. The set-up was not such that I could take over whole chunks of the school day. So a story involving whole-scale explorations of the community was out of the question. We would have to settle for the tried and true joint telling of a tale.

"Would you like to write a book?" I asked Miss McManus' class in passing, as I collected papers towards the end of the fifth, final week of the study.

"Us? How could we? Of course we couldn't."

There were 21 boys and girls in the class. We could work out the general outline together, probably form groups to work out the separate sections, then write 21 individual chapters.

"Impossible!" was the unanimous rejection when I mentioned the idea again during the interview period.

Some kind of detective yarn, I thought. That way they would have to keep a very keen eye on their own and each other's details. Sequence, too, would be crucial; and explanations and reasoning would be involved.

For a couple of weeks or so we did mainly five-finger-exercise writing, such as games to sharpen description, to exercise the imagination, and lots of sequence games. The journals also, of course, continued.

"If we put all the journals together," I ventured, "we'd almost have a---"

"Forget it!"

A detective yarn, then, and set in their own small town, to have them open their eyes to what was around them.

I read them Emil and the Detectives, Rich Kastner's little gang making hay around a city Kastner knew inside out. I read them a book I'd written about a boy their own age using his legs and finally his head from end to end of Madrid, a city I spent mant years exploring.

"You wrote it?! How did you get the idea for...? Did you ever know somebody who...?" They relished the notion that you could put anybody and anything you like in there, and call them by different names and even tell but cover up your own hopes, disappointments and misdoings.

"Say," they were asking before we had finished Chapter III, "what about that book we were going to write? Why haven't we started?"

The overview of the plot wasn't as difficult as might be expected with 21 opinions. The villain had robbed a bank in Syracuse, was driving to East Syracuse, their town, where the passenger station is, to catch the train. He was a man - a woman: impasse, until it was decided that he was a master of disguise, and would appear in the story as both. He was going to be spotted as a suspicious character by a fourth grade boy - girl - impasse: both. But fourth graders couldn't do everything themselves, we ought to have them older: no, we'd give the boy an older sister and the girl an older brother, and use them when we needed them. After various adventures around the town, the robber would be caught, there would be a trial, and finally a celebration.

Groups of three and four were formed to tackle each section. They formed the groups by friends and by liking for particular parts of the story, and if a group didn't have anyone in it to help sort out events and chapters too well, Miss McManus and I just had to be a little more available.

Finally everyone knew which chapter they were going to write, and the essentials that had to be in it.

Jimmy started us off. "The man looked like one of my friends..." There was a full description of the villain, Gus Rogers, of his; we learn he is to catch the train, is avoiding the cops, but we don't know why. He changes into disguise number one, fully described, and drives into town.

> "Gus Rogers thought it looked as if there was nothing to do in East Syracuse. It looked like a very small town to him. ....(he) did not know that the kids in East Syracuse could have great fun in their own backyards... basketball... water bucket fights... kick the can... fishing... catch frogs and minnows and little crabs, even big crabs... They could race their bikes on a track down there when the water was dry. They had cleared the weeds out especially. But Gus Rogers did not know about all this. Gus just liked to be big, with lots of money to show off."

The chapter was read aloud; from class suggestions, the description of disguise was rounded out a little; and then the pages were put up on the

wall, so that we could all make ourselves completely familiar with our villain.

To forward the action in Chapter II we needed a description of the car junkyard and now the compressor works; and later in the chapter a page of the villain weighing pros and cons as he makes his plans. In Chapter III he has to drive around the town, inspects the shop windows one by one. In Chapter IV we begin to get closeups of other characters. First there are the real people of the neighborhood. (We changed some of the people's characters for the book", the writers explained in their final publication, "because we needed to make the book interesting.") Then the teenage brother and sister appear. The group responsible for this section of the book acted out the situation the teenagers driving along, taped the dialogue, and Ed incorporated it into his chapter. Actually the teenagers don't come out of it too well; there's a hint of younger siblings getting their own back every time the rather frivolous, bickering older pair appear. Ed also added an anecdote of his own to the conversation. He had the brother tell as having happened to him one of Ed's own escapades, an account which had appeared several weeks before in Ed's journal, been shared with friends, and proved very popular. As this chapter, like the others, was read aloud and then joined the growing sequence around the wall, there was general approval that this episode should be thus contributed.

In Chapter V, Harry and Susan, hero and heroine, finally enter; observant, plucky, competent, resourceful, and very good friends. As with the teenagers, the writers never stop to tell us what sort of people they are. Their scenes also were often acted out, taped and transcribed. There are none of those contrived dialogs and embarassing asides that adult writers of children's books tend to indulge in to make sure we grasp how bright and good and kind the hero is, how touching a friendship. But these two young people come across as thoroughly likable, and real. I've never quite fathomed how the children pulled this off in every chapter. Partly, I suppose, because they imagined themselves completely into the situations as they acted them out, so the dialog is convincing and unselfconscious, with no editorializing. Then doubtless as they imagined themselves as hero and heroine they idealized a little. (And somewhere in there, though it never quite surfaces, is love's young dream...)

And so chapter after chapter events, descriptions and characters were built upon, every writer familiar with what had gone before, and adding a personal touch of his own. Each chapter had its own delights, such as Chapter VIII where the action moved to our school, Chapter XVI which involved research with the local police and jail, Chapter XX which called for a morning in court. (We asked the other fourth grade, Mr. Smith's class, to help with the trial scene, as they had been studying court procedure. But in the improvisation one of their number defended Gus so effectively that he was acquitted. Miss McManus' class declared a mistrial, retried him on home ground and had him convicted and put away.)

Towards the end, an orgy of self-congratulation sets in. Harry and Susan are feted by their class (Miss McManus's, obviously), in a rather ribald party, all 21 children making a personal appearance. There is a public ceremony in the Masonic Temple, with the Mayor presiding, and a reward of $500 each from the manager of the bank that was robbed. (Harry said he was going to buy a better ring for Susan now." The chapter was written by a girl!) When finished, the book became "Main Street Mystery".

The project had had the children working like beavers at their skills and added up for them to a high-flying ego trip. Their friends and families and all the local people who appeared in it were very pleased with it too. And we had our crown upon crown of satisfactions just as Harry and Susan did. The fourth grades did so well on their skills tests, after the year of Miss McManus's and Mr. Smith's imaginative guidance, that the Superintendent sent a special note of approval. So apparently the time we had spent on writing at least had done no harm. And then before the semester was over, a group of university students doing a workshop in television made a halfhour film of how the children wrote their book, which was telecast locally with some acclaim and many constructive offshoots.

What I have in mind now is some collaborative writing endeavor that brings the children into close touch with their community, explores feelings, furnishes a research base for investigation and of course provides for language development across a broad range of content and purpose.....

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